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Recent Travel and Adventure

SELECTED AND EDITED BY

ROBERT COCHRANE

WITH TWENTY-SEVEN ILLUSTRATIONS

W. & R. CHAMBERS, LIMITED
LONDON AND EDINBURGH

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Edinburgh:
 Printed by W. & R. Chambers, Limited.

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CONTENTS.

	PAGE
X STANLEY ON THE CONGO, AND HIS RESCUE OF EMIN PASHA.....	7
X THROUGH MASAI LAND WITH THOMSON.....	29
THREE YEARS WITH GREELY.....	46
X GENERAL GORDON.....	69
LADY BRASSEY'S VOYAGES IN THE 'SUNBEAM'.....	83
NORDENSKJÖLD'S DISCOVERY OF THE NORTH-EAST PASSAGE..	107
MISS BIRD'S TRIP TO THE SANDWICH ISLANDS AND ROCKY MOUNTAINS.....	119
LIVINGSTONE IN AFRICA.....	137
X VAMBERY'S TRAVELS IN CENTRAL ASIA.....	170
WONDERS OF THE YELLOWSTONE REGION.....	187
ADVENTURES OF AUDUBON THE NATURALIST.....	203
BURTON'S PILGRIMAGE TO MEDINA AND MECCA.....	222
THE NORTH-WEST PASSAGE BY LAND.....	247
VICTOR JACQUEMONT, THE FRENCH NATURALIST.....	266
TRAGEDY ON THE MATTERHORN.....	279

ILLUSTRATIONS.

	PAGE
AN INCIDENT IN STANLEY'S JOURNEY.....	<i>Frontispiece.</i>
VILLAGE OF MANBAYA.....	7
STANLEY ATTACKED BY SIXTY-THREE LARGE CANOES.....	11
A WA-TEITA VILLAGE, NDARA.....	29
MASAI WARRIORS.....	39
'HE WAS TOSSED SKYWARD'.....	43
THE 'SUNBEAM' BEATING UP THE RED SEA.....	83
ASCENT OF THE PEAK OF TENERIFFE.....	87
KILAUEA BY NIGHT.....	94
LANDING-PLACE AT CAPRI.....	101
LARNAKA.....	103
THE 'MONKSHAVEN' ON FIRE.....	106
THE VEGA PASSING THE NORTH-EAST CAPE OF ASIA.....	117
LIVINGSTONE AT WORK ON HIS JOURNAL AT UJIJI.....	136
MAP OF CENTRAL AFRICA.....	139
CROSSING THE MAKATA SWAMP.....	145
VIEW OF UJIJI; FROM A PHOTOGRAPH.....	163
LIVINGSTONE AND STANLEY AT THE MOUTH OF THE RUSIZI.....	167
RIPON FALLS—ORIGIN OF THE VICTORIA NILE.....	169
YELLOWSTONE VALLEY.....	188
LUMBERMEN CLEARING A BARRIER.....	217
THE KAABA AND KISSING STONE AT MECCA.....	243
CAIRO.....	245
ASCENT OF THE ROCKY MOUNTAINS.....	246
UPPER LAKE OF THE ATHABASCA AND PRIEST'S ROCK.....	257
THE ASSINIBOINE RESCUES BUCEPHALUS.....	261
SUMMIT OF MATTERHORN.....	278

. We beg to acknowledge the courtesy of Lady Brassey and the several publishers who have kindly permitted us to make use of the illustrations in this book.



Village of Manbaya.

STANLEY ON THE CONGO, AND HIS RESCUE OF EMIN PASHA.

HENRY MORELAND STANLEY, whose discovery of Livingstone, exploration of the Congo, founding of the Congo Free State, and rescue of Emin Pasha, have given him a conspicuous place among modern travellers, was born at Denbigh, in 1841. He was, when only three years of age, placed in the workhouse of St Asaph, and there was educated and remained for about ten years. While still in his teens, he emigrated as

cabin-boy to New Orleans, where he was adopted by a merchant named Stanley; while in his service he dropped his own original name of John Rowlands and adopted that borne by his employer. On the death of his patron he joined the Confederate army, was taken prisoner, but escaped, and afterwards served as a petty officer in the Federal navy. At the close of the American civil war he became a newspaper correspondent.

In this capacity, he accompanied the British military expeditions to Abyssinia and Ashantee, and wrote an account of them. His great services to humanity and civilisation, in the finding of Livingstone in 1871, are afterwards referred to (page 166). Under a joint commission from the *New York Herald* and the *London Daily Telegraph*, he in 1874 undertook an expedition into Central Africa, to investigate various geographical problems which Livingstone left unsolved.

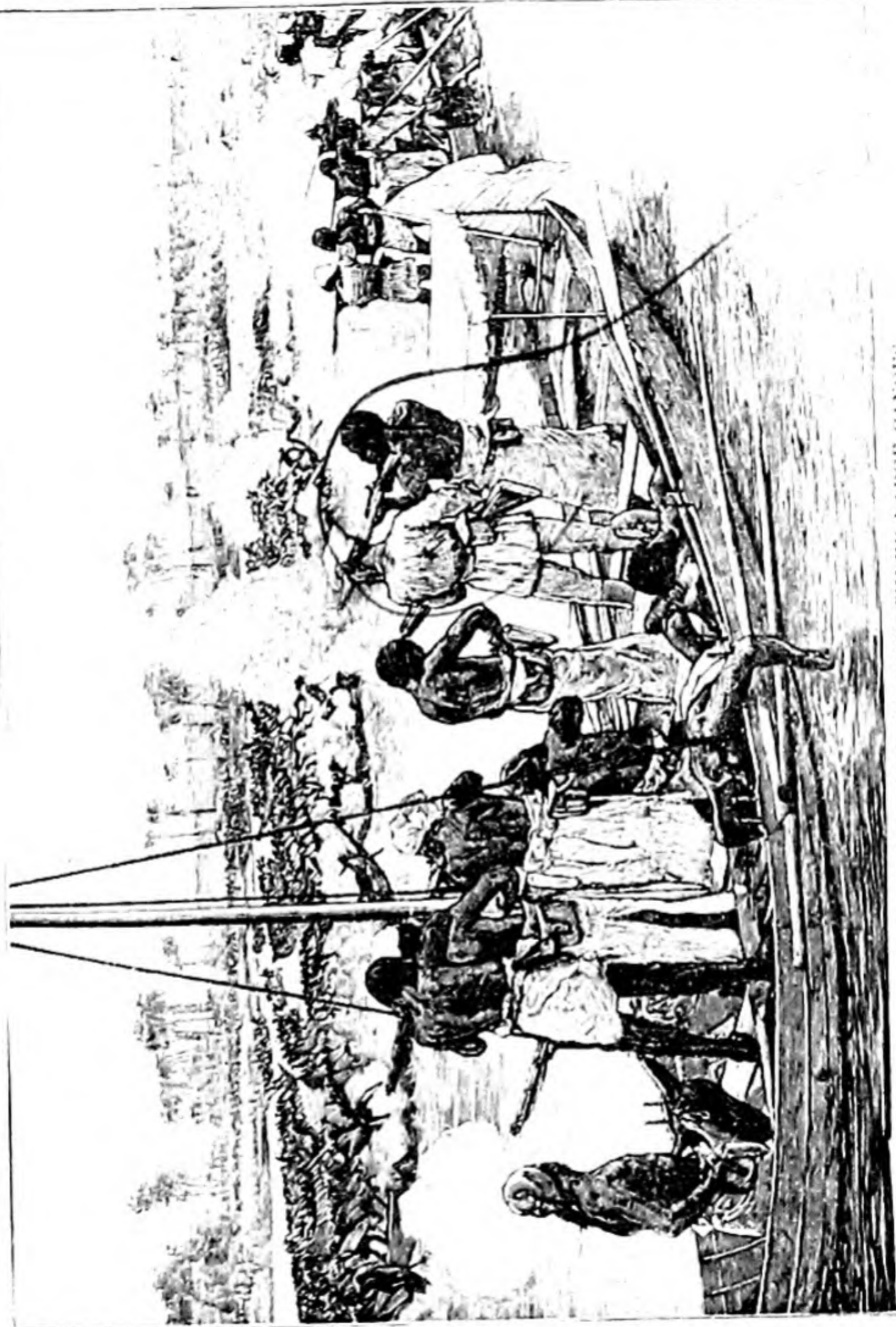
Stanley started in November 1874 from the east coast of Africa at the head of 300 men, and reaching the Victoria Nyanza, in 1875, circumnavigated and explored it. He then made for the Albert Nyanza, which he touched, and then came to Ujiji. He examined part of Tanganyika, and settled that the Lukuga, a westward outlet of the lake, carries its outflow towards the Lualaba only in time of flood, and is at times actually an affluent of the lake. Stanley struck the Lualaba at Nyangwé in October 1875, and thence proceeded down stream. In spite of enormous difficulties, he forced his way along the course of the river, and had to fight thirty-two

battles ere he reached that point on the Congo, above Yellala Falls, to which the river had been explored upwards by Captain Tuckey in 1816. When Stanley arrived at the mouth of the stream in August 1877, he had seen the same river, known higher up as Chambeze, Luapula, and Lualaba, 'change its name scores of times,' and approach the Atlantic as Congo, Kwango, and Zaire. To these many names Stanley proposed to add another, by calling the whole river Livingstone.

On his arrival at Emboma, near the mouth of the Congo, Stanley sent the following interesting account of his journey to the *Daily Telegraph*. It was dated 10th August 1877: 'On the 8th inst. I arrived at this place from Zanzibar, with 115 souls, in a fearful condition. We left Nyangwé in Man-yema, 5th November 1876, travelling overland through Ureggu. Unable to make progress through the dense forests, we crossed Lualaba, and continued our journey along the left bank through North-east Ukusu. Natives opposed us, harassed us day and night, killed and wounded our people with poisoned arrows. Our struggle through these cannibal regions became almost hopeless. We endeavoured to appease the savages with gifts and mildness. Our gifts they refused; our patient behaviour they regarded as cowardice. To make our position still more deplorable, our escort of 140 men engaged at Nyangwé refused to proceed farther. At the same time the natives made a grand effort to crush us altogether. We defended ourselves, but there was only one way to escape from our hapless position—

unless we accepted the alternative of returning, and abandoning the work which we had begun—and this was by making use of our canoes. Though we had decided advantage over the savages on the water, still each day's advance was but a repetition of the day previous. It was desperate fighting, pushing on down river with might and main until, in the midst of these successive struggles, we were halted by a series of great cataracts—five in number, not far apart—south and north of the equator. To pass these we had to cut our way through thirteen miles of dense forest, and drag our eighteen canoes and exploring boat overland, frequently exchanging the axes for the rifles as we were attacked.

After passing these cataracts, we had a long breathing pause from the toil of dragging our vessels overland. At 2° north latitude the great Lualaba swerved from its almost direct northerly course to north-west, then west, then south-west—a broad stream from two to ten miles wide, choked with islands. In order to avoid the exhausting struggle with so many tribes of desperate cannibals, we had to paddle between the islands, until, compelled by hunger most extreme, after three days passed without absolutely any food, we resolved to meet our fate, and struck for the mainland on the left bank. Happily we had reached a tribe acquainted with trade. They possessed four muskets from the West Coast, and called the great river Ikutu Ya Congo. We made blood brotherhood, and purchased abundance of provisions; and endeavoured to continue



STANLEY ATTACKED BY SIXTY-THREE LARGE CANOES

our course along the left bank. Three days later we came to a powerful tribe, all armed with muskets, who, as soon as they sighted us, manned sixty-three large canoes, and attacked us. Not until three of my men were killed did I desist from crying out we were friends, and offering cloths. For a distance of twelve miles the greatest and most desperate fight on this terrible river was maintained. This was the last save one of thirty-two battles on the Lualaba.

‘As the river runs through the great basin which lies between E. long. 26°, and E. long. 17°, it has an uninterrupted course of over 1400 miles, with magnificent affluents, especially on the southern side. Thence, cleaving the broad belt of mountains between the great basin and the Atlantic Ocean, it descends by about thirty falls and furious rapids to the great river between the Falls of Yellala and the Atlantic. Our losses have been most severe, and my grief is still new over the loss of my last white assistant, the brave and pious young Englishman, Francis Pocock, who was swept over the Falls of Massassa on 3d June last. The same day I, with seven men, was almost drawn into the whirlpools of Mowa Falls; and six weeks later myself and the entire crew of the *Lady Alice* were swept over the furious falls of Mbelo, whence only by a miracle we escaped. My faithful young companion Kalulu is also among the lost.’

The descent of the Stanley Falls, as we have seen from the explorer's own record, was not accomplished without loss of life and property. There was one

marvellously narrow escape. A canoe had been capsized in a piece of bad water just above one of the falls. Two of the men on board swam down the furious stream to an island, from which they were rescued; but poor Zaidi, the chief, paralysed by the roar of the stream, clung to his canoe, which was swept past the camp to what seemed certain death over the falls. He was saved, however, in a very wonderful manner. The great fall to which he was hastening was disparted by a single pointed rock, and on this the canoe was driven. It was borne down by the weight of the waters, split in two, one side getting jammed below, and the other being tilted upwards. To this tilted-up fragment of the canoe the almost drowned man clung, while perched on the rocky point. As he thus hung on the verge of destruction, various schemes were suggested for his deliverance. Ropes were flung towards him, and attempts made to float empty canoes within his reach, but without effect. At length a canoe, with two brave men on board, tried to save him. Stout ropes were lashed to bow and stern, and held by men on shore, and the boat was guided downwards till within ten yards of the man, when a rope was flung to him. He clutched at it, and had just time to grasp it, when he was swept over the falls into the gulf below. The canoe with the two men on board, who had been trying to save him, drifted against a rocky islet above the falls. ~~On~~ On landing here, they pulled the rope, and discovered that the drowning man was still at the end of it, when they hauled him up beside them. This was but a reprieve from death

apparently, for the three men held but a precarious foothold on their rocky islet; but next day their rescue was effected, and one by one the men were dragged hand over hand by means of ropes through the boiling waters. In his work entitled *Through the Dark Continent*, Mr Stanley gave a full account of this remarkable journey.

As leader of the International African Association, under the patronage of the king of the Belgians, Mr Stanley returned to the Congo in 1879. For the commercial development of this vast region, the most active measures have of late years been taken. After his great journey Stanley was occupied in endeavouring to open up the region to European commerce. At a conference of the European powers held in Berlin at the close of 1884, it was determined that trade should be perfectly free to all nations throughout the basin of the Congo, as well as over a large area to the east. At the same time, the greater portion of this basin was recognised as a free state belonging to the Congo International Association. The boundaries of this state have been settled by treaties with various foreign powers, and its area amounts to about 900,000 square miles, or more than ten times that of Great Britain.

The Congo Free State is governed by an administrative bureau at Brussels, consisting of three secretariats—Control, Finance, and Foreign Affairs, under the direct supervision of His Majesty the King of the Belgians; also by an administrator on the Congo, who has his headquarters at Boma, sixty miles from the sea, on the right bank of the river.

with care and attention to diet, Europeans may remain in the country without change for years. The interior is more healthy than the coast.

Vast forests and rich pastures are the prevailing features described by Stanley as seen from the great river itself. Of the products of these forests, those likely to be of most importance to trade are the oil of the oil-palm, ivory, beeswax, india-rubber obtained from a large liana or twining plant, gums, and a lichen known as the orchella weed, which grows on the trees, and from which a highly-esteemed dye is obtained. In one district Stanley observed eighty miles of trees literally veiled with this valuable weed. Vast areas, too, are covered with fine timber-trees, such as ebony, mahogany, teak, &c., and only facilities of transport are needed to enable this wealth to become utilised. Wild coffee, tobacco, and hill rice are cultivated on the upper river, also various kinds of maize and sorghum. The tropical fruits, bananas, pine-apples, and mangos abound.

Much has been done since the founding of the state, in colonisation and civilisation on the banks of the Congo. We have now a basis of communication between the Upper and Lower Congo. In 1890 there were twelve steamers passing up and down the river, and a railway was in course of construction between the Upper and Lower Congo, so that in about three years afterwards it might be possible to communicate with England, from the spot where Livingstone died, in six weeks.

STORY OF THE RESCUE OF EMIN PASHA.

In order to understand the motive and purpose of Mr Stanley's expedition for the relief of Emin Pasha, some reference is necessary to affairs in the Soudan. Arabi's revolt and its consequences loosened the hold of Egypt on the Soudan, which by Baker's annexations in 1874 and following years had gradually extended to the shores of the Victoria Nyanza. A widespread rebellion broke out in Dar-Fûr and Kordofan under Mohammed Ahmed, calling himself the *Mahdi*, a word meaning 'the guided by God.' The Mahdi poses before the world as a kind of Mohammedan Messiah. Mohammed Ahmed, who is now dead, was born at Dongola about 1843, educated near Khartoum, and then spent fifteen years in fasting and retirement in the island of Aba, whence he at length sent emissaries to preach the doom of Turkish rule in the Soudan, and the advent of the true Mahdi. After routing several Egyptian forces sent against him, these reverses were afterwards wiped out by the hard-won successes of a British expedition under Sir G. Graham.

Meanwhile, in January 1884, General Charles George Gordon had gone at the request of Mr Gladstone's government as English representative to Khartoum, to secure the withdrawal of the Egyptian garrisons from the Soudan. Gordon, though supported by only one other English officer, gallantly maintained his position in Khartoum against the Mahdi's followers, and even ventured successfully on the aggressive. He found, however, that he

had attempted an impossible task; he could not leave the garrisons to fall into the hands of the Mahdi, and he required reinforcements of British troops before he could drive the latter from the neighbourhood of Khartoum. At last, too late, in October 1884, an English expedition under Lord Wolseley was despatched to Khartoum, and, selecting the difficult and tedious route up the Nile, arrived in touch of Khartoum only to learn that the heroic Gordon had been assassinated two days before (26th January 1885). The expedition thereupon withdrew, without attempting to retaliate, and the Soudan was left to enjoy its anarchy, save for occasional, not very resolute, military operations around Suâkin. To one of Gordon's lieutenants, Dr Schnitzer, known as Emin Pasha, fell the duty of holding out in the equatorial regions, and the most remarkable and adventurous journey ever undertaken by Mr Stanley was that in connection with the expedition for his relief. X

Emin Pasha came into notice as an explorer who had increased our knowledge of geography and science, and as the successful governor of the equatorial province of the Egyptian Soudan. Edward Schnitzer, who from early youth showed a fondness for travel and natural history, is a native of Prussian Silesia, was educated at Breslau and Berlin, and served in Turkey before he entered the service of the khedive of Egypt. He became medical officer on Gordon's staff, and was afterwards appointed governor of the Equatorial Province. He set himself to amend the disorder and corruption he found existing

there, from the raids of the Arab slave-hunters and corrupt Egyptian soldiery; agriculture was encouraged, and soon the revenue, which before had been deficient, began to show a surplus.

In the beginning of 1884 the situation of Emin Pasha began to assume a critical condition; owing to the raids of the Mahdists, discontent showed itself amongst his own people, and his supplies began to run short. It became evident to his friends at home that he was gradually being hemmed in, on the north by the Mahdi, on the south by Mwanga, king of Uganda, and hostile tribes. His heroism in sticking to his post awakened public admiration and sympathy. Sir William Mackinnon, a gentleman deeply interested in Africa, moved in the direction of organising an Emin Relief Expedition in 1886, towards the expenses of which the Egyptian government contributed £10,000. Very soon £20,000 were subscribed. Mr Stanley, who was about to proceed to America to fulfil engagements which might have put £10,000 in his pocket, was asked if he was willing to undertake another expedition. He said, 'You English are great ones for talking, and do not appear to do much; so until you decide upon some definite course I will not promise anything. However, if you do decide, telegraph to me, and I will come and take charge of the party.' He had been fifteen days in America when he received a telegram recalling him to England, it having been decided to further investigate the interior of Africa. He came over and took command of what is known as the 'Emin Pasha Relief Expedition.' Of the four pos-

sible routes Stanley chose that of the Congo, and was at Zanzibar in January 1887 preparing for the journey. The expedition at first consisted of 11 European officers, 62 Soudanese, 13 Somalis, 3 interpreters, 620 Zanzibaris, and Tippu Tib with 97 of his people. The Aruwimi was reached in June 1887 by the gallant leader and the first of his followers. Towards the end of June a start was made to Wadelai, with 389 men rank and file, several officers being left behind in an entrenched camp at Yambuya, under Major Barttelot. The latter was to remain at Yambuya until the arrival of the steamer from Stanley Pool with the officers, men, and goods left behind; then he was to organise the rear column, and follow up Stanley's footsteps. A promised contingent of carriers from Tippu Tib never arrived, and the after history of this remnant was that of disease, disaster, and death.

The journey they were now about to undertake was through one continuous, unbroken, primeval forest, which, beginning at the confluence of the Congo with the Aruwimi, maintained the same aspect, density, and character across nearly $4\frac{1}{2}^{\circ}$ of longitude. Though daily expecting to hear from natives some news of a grassy country lying to north, south, or east of them, it was not until they were seven days' march from the grassy region that Stanley came across any who had ever heard of grass-land. To the rest all the world was overgrown with one endless forest. On the 155th day of their departure from Yambuya, from the summit of Pisgah Ridge, at the base of Pisgah Mount, they first saw

the open country, and on the 160th day, or December 4, emerged from the forest, and in all this lengthy interval they had neither seen nor heard of any open space in the bosom of the forest, save the clearings that had been laboriously made by the natives. At the beginning of the journey every art known to the natives for molesting and impeding and wounding the advancing column was used. Not one member of the expedition was likely to forget the month from 18th September to 18th October. Fifty-five men were lost by starvation and desertion, and they had to live on wild fruit, fungi, and a large flat, bean-shaped nut. The men became so weak that they could scarcely carry the boat and the loads of goods. Diseased donkeys were eaten down to the hoofs, and their bones pounded to form soup; three small fish would be divided among four. They suffered from hunger more or less from August 31 till 12th November, when Stanley and his men were reduced to mere skeletons. Out of 389 men they now numbered only 174. So demoralised were they that they would not believe that beyond 'these raiders' lay a country untouched, with abundant food, and where their miseries would be forgotten. Desertions became frequent, and two of the worst offenders were hung in presence of the rest.

This passage from a letter by the explorer gives a graphic notion of their forest journey: 'Take a thick Scottish copse, dripping with rain; imagine this copse to be a mere undergrowth, nourished under the impenetrable shade of ancient trees, ranging from 100 to 180 feet high; briars and thorns abundant;

lazy creeks meandering through the depths of the jungle, and sometimes a deep affluent of a great river. Imagine this forest and jungle in all stages of decay and growth—old trees falling, leaning perilously over, fallen prostrate; ants and insects of all kinds, sizes, and colours, murmuring around; monkeys and chimpanzees above, queer noises of birds and animals, crashes in the jungle as troops of elephants rush away; dwarfs with poisoned arrows securely hidden behind some buttress or in some dark recess; strong brown-bodied aborigines with terribly sharp spears, standing poised, still as dead stumps; rain pattering down on you every other day in the year; an impure atmosphere, with its dread consequences, fever and dysentery; gloom throughout the day, and darkness almost palpable throughout the night; and then, if you will imagine such a forest extending the entire distance from Plymouth to Peterhead, you will have a fair idea of some of the inconveniences endured by us from June 28 to December 5, 1887, and from June 1, 1888, to the present date, to continue again from the present date till about December 10, 1888, when I hope then to say a last farewell to the Congo forest.'

✓ This is another glimpse of one day's march: 'The mornings generally were stern and sombre, the sky covered with lowering and heavy clouds; at other times a thick mist buried everything, clearing off about 9 A.M., sometimes not till 11 A.M. Nothing stirs then; the insect life is still asleep; the forest is still as death; the dark river, darkened by the lofty walls of thick forest and vegetation, is silent as the

grave: our heart-throbs seem almost clamorous, and our inmost thoughts loud. If no rain follows this darkness, the sun appears from behind the cloudy masses; the mist disappears; life wakens up before its brilliancy; butterflies skurry through the air; a solitary ibis croaks an alarm; a diver flies across the stream; the forest is full of a strange murmur; and somewhere up river booms the alarum drum—the quick-sighted natives have seen us; voices vociferate challenges; there is a flash of spears, and hostile passions are aroused.'

On December 13 the explorers sighted Lake Albert, lying between two lofty plateau walls, ranging from 4500 feet to 6000 feet above the sea. From the natives the news was learned that no white man had been seen in the neighbourhood, and the decision was then arrived at to return to the forest region, and after building a fort on a suitable clearing (Ibwiri), to march back again to the lake with the boat, by which easy communication could be made with Wadelai.

It was only on Dec. 16, 1888, that Mr Stanley had the pleasure of seeing the *Khedive* steamer and welcoming Emin Pasha, Captain Casati, and a number of Egyptian officials in his camp near Nyamsassi. Stanley found Emin Pasha in a much worse position than he believed he was when he set out from England. Kabba Rega of Unyoro, east of Lake Albert, once friendly to him, on hearing that an expedition was on its way for his relief, expelled Captain Casati, and set him adrift to perish. The northern outlet by the Nile was also blocked. They stayed

together until May 25, and after leaving Mr Jephson with the Pasha and also a few Soudanese, they commenced to retrace their steps for the second time west towards the forest region. Contrary to expectations, they did not find the Pasha disposed to return to the sea, neither was Captain Casati; nor did any one impress them with eagerness to return to civilisation.

Early in June the advance column returned to Fort Bodo to proceed to the relief of Major Barttelot, about whom anxiety was now entertained. On August 17 Mr Stanley discovered the sad fate which had overtaken the rear column. He found it a terrible wreck. Out of 257 men there were only 71 remaining. Major Barttelot had been shot by his auxiliary carriers, and Jameson died of fever. The reasons which Stanley assigned for the catastrophe in which Major Barttelot perished were the breach of contract by Tippu Tib, and his method of prevarication and dissimulation, to which the young officers of the rear column were strangers. The second cause Mr Stanley assigned as the indifference manifested by Barttelot and his companions to the letter of instructions.

By the middle of January 1889 the expedition, for the second time, was within two days' march of the Albert Nyanza. One of the chiefs who welcomed Mr Stanley brought him a packet of letters, from which he discovered that 'fiction could not have invented positions so distressing as those now occupied by both Emin Pasha and Mr Jephson.' They had been made prisoners on August 18 in

the preceding year, had been violently handled, menaced by death at the hands of excited soldiers, and kept in close captivity. Mr Jephson, however, managed to get to Mr Stanley's camp, and told the explorers that, notwithstanding all his troubles, the Pasha had not and could not make up his mind to leave his province. This seemed to be the position of the Pasha: 'If my people go, I go; if they stay, I stay.' An army of the Mahdi appeared at Lado, the most southerly of the equatorial stations. Redjah was captured and destroyed, and the officers massacred those who were sent against them. Emin went to Wadelai, then fled to Tungara; while the Mahdists were defeated at Duffile.

At last, on 10th April 1889, Stanley and Emin Pasha, with about 570 followers, started from Kavalli's at the south end of the Albert Nyanza for the east coast. Two days afterwards Stanley was struck down with a severe illness, which well-nigh proved fatal, and detained them at the camp twenty-eight days. The route adopted was one which, at first, skirted the Balega Mountains, at a distance of forty miles from the Nyanza. As they advanced southward, Ruwenzori (first seen on May 1, 1888) appeared fresh and brightly pure, every line and dent, knoll, and turret-like crag deeply marked and clearly visible. Its altitude above the sea Stanley estimated at 18,000 or 19,000 feet. Lieutenant Stair succeeded in climbing to a height of nearly 11,000 feet. Mr Stanley says that this remarkable mountain must be near or on the line of the equator. Bagomoyo was reached on 6th December 1889, and the only other

regrettable incidents of the return journey were the deaths of many of the refugees on the route, and an accident, soon after their return to civilisation, to Emin Pasha, which at first threatened to prove serious.

In Mr Stanley's report, printed in a parliamentary paper, the geographical results are thus summed up: 'We can prove that east and north and north-east of the Congo there exists an immense area of about 250,000 square miles, which is covered by one unbroken, compact, and veritable forest. Professor Drummond, as late as 1888, writes: "The fairy labyrinth of ferns and palms, the festoons of climbing plants blocking the paths and scenting the forests with their flowers, the glorious cloud of insects, the gaily-plumaged birds, the paraquets, the monkeys swinging from their trapeze in the shaded bowers—these are unknown to Africa." With due deference to the professor, these are precisely what are every day seen within that great area of 250,000 square miles, through the core of which we travelled for thirteen months, and in whose gloomy shades so many scores of our dark followers perished. Our progress through the dense undergrowth of bush and ambitious young trees which grew beneath the impervious shades of the forest giants, and which was matted by aruns, phrynias, and amomas, meshed by endless lines of calamus, and complicated by great cable-like convolvuli, was often only at the rate of four hundred yards an hour. Through such obstructions as these we have had to tunnel a way for the column to pass. The Amazon valley cannot boast a

more impervious or a more umbrageous forest, nor one which has more truly a tropical character, than this vast Upper Congo forest, nourished as it is by eleven months of tropical showers. The discovery of the source of the south-west branch of the White Nile is also of great interest. We now know that the White Nile is formed by the surplus waters of two lakes, the Victoria and the Albert Edward, respectively to the south-east and south-south-west, which are received by the Albert, and discharged northward towards the Mediterranean in one grand river, called the Bahr-el-Abiad, or the White River. We also know now the exact limits of the Albert Victoria and Albert Edward lakes, which are embraced within the Nile basin, and are situated near the sources of the famous river. We have discovered the snowy mountains called by the early Arab geographers the Mountains of the Moon, and whose snowy tops, known by the modern name Ruwenzori, furnish the waters which form the Semliki River and the Albert Edward Lake.'

The distance travelled in the interior of Africa by Mr Stanley personally was estimated by him at 5400 miles, of which all but 1000 were on foot. The expedition has occupied three years, and rescued two hundred persons, at a cost of less than £30,000. The Abyssinian expedition, in which Mr Stanley acted as newspaper reporter, occupied six months, and rescued eight persons at a cost of nearly £9,000,000.

See the narrative of this last journey, entitled *The Darkest Africa, and the Quest, Rescue, and Retreat of Emin, Governor of Equatoria* (1890).



A Wa-teita Village, Ndara.

THROUGH MASAI LAND WITH THOMSON.

JOSEPH THOMSON, a young Scotsman born at Thornhill, Dumfriesshire, in 1858, began a career of adventurous travel in rather a remarkable way. In 1877 he was but a youth attending classes at Edinburgh University, and three years later he was heading an expedition to the Central African Lakes, from which he returned crowned with honour and success. It came about in this way. Young Thomson, accidentally observing in a newspaper that the Royal Geographical Society was sending out an African Expedition under Mr

Keith Johnston, offered his services, and obtained the appointment of geologist to the expedition. At Mr Johnston's lamented death, he was unexpectedly called upon to take the leadership of the expedition, and pushed on to the north end of Lake Nyassa, and thence by the shores of Tanganyika till he was within ten miles of the Congo. The route he followed both in going and returning was over hitherto untrodden ground. He knew how to manage his porters, although they caused him much trouble. Considering his youth, he succeeded wonderfully with the natives through whose territories he travelled, and was able to say, on his return to the coast, that he had avoided bloodshed in his dealings with them. This journey was described in his book, *To the Central African Lakes and Back* (1881). The year after his return he went out again to East Africa, to examine the so-called coal region of the Rovuma basin for the Sultan of Zanzibar. But he failed to find this mineral. Of his third journey, through Masai Land, we present a brief narrative; his fourth journey was undertaken to the Niger in 1885, on behalf of the National African Company, for commercial purposes.

Masai Land is described as a diagonal strip of country in East Africa, of which, previous to the daring and adventurous journey of Joseph Thomson, Europeans had only seen the skirts. Several travellers had penetrated some distance into the country, but it remained for Thomson to cross the whole of Masai Land. Entering the east coast of Africa at

Mombasa, he journeyed from the foot of Mount Kilima-Njaro to Kavirondo, on the shores of the Victoria Nyanza. A sum of three thousand pounds was set aside by the Royal Geographical Society for this expedition, and the commission which Mr Thomson received as leader, was to ascertain if a practicable direct route for European travellers existed through the Masai country from any one of the East African ports to Victoria Nyanza. He was also, at the same time, to examine Mount Kenia, and to gather material for constructing a map, after his survey.

The young explorer started on 15th March 1883 from Mombasa, a decayed seaport town on the east coast, with a motley group of 140 men, including James Martin, a sailor, as caravan assistant. These men were loaded with provisions; beads, iron, brass, copper wire, clothes, and ammunition. The season of the year was that which immediately precedes the rains, and the sun, being directly overhead, made the members of this expedition groan and sweat by its oppressiveness. Every few steps at the beginning, the porters would exasperate their leader beyond measure by throwing down their loads, and shouting for water. The incompetence and weakness of the men had a chilling effect upon Thomson's enthusiasm at first; besides, so many disasters had befallen travellers entering the Masai country, that these men felt the utmost dread in pushing forward. As Thomson looked at them, he remembered Stanley's significant advice to him, 'Take a thousand men, or make

your will.' Still, after a world of trouble and annoyance, he brought them back at last to Zanzibar improved physically and morally beyond all recognition.

In the first part of his journey the road stretched over the undulating country of Duruma, which is densely covered with bush and tangle, alternating with thorny scrub. Here and there were to be seen settlements of miserable natives waging war with nature and eking out a poor existence, often face to face with famine, and flying before the conquering Masai tribe. On the third day's journey all trace of population was left behind; instead of bush they were surrounded by thorns and gnarled trees, and the soil was a glaring red sand. Not a drop of water was to be found save in small holes filled with recent rains, and this was muddy and undrinkable. Crossing this uninhabited plain, its monotony was exchanged for picturesque isolated mountains rising to a height varying from three hundred to seven thousand feet, with cool breezes and sparkling rills. Mr Thomson climbed one of these mountains, which proved to be over five thousand feet high.

Mr Thomson, in climbing the rugged face of Ndara, found to his surprise that the upper part of the mountain was thickly peopled, with the exception of the actual summit, which is too cold and wet to be comfortable. On descending the mountain he spent some time with Mr Wray, a missionary among the Wa-teita. All the traveller's endeavours to get any of the natives to stand still

until they were photographed were entirely in vain. They imagined he was a magician trying to take possession of their souls. The men, in personal appearance, were lean and spare, though capable of considerable endurance. Their dress was a scanty cloth wound about the loins, or hung from one shoulder. Their weapons were a knife, a long sword, and the bow and arrow. The women are strong, have a small piece of hide as a waist-cloth; the hair is shaven round the temples, till only a circular patch three or four inches in diameter is left on the crown of the head. Enormous quantities of beads, often weighing twenty or thirty pounds, are hung round the neck and adorn the person.

When one of these natives marries, he first settles with the father of the bride, buying her for three or four cows. The girl then runs away and hides among her distant relatives, until her betrothed finds out her hiding-place and catches her. Assisted by some of his friends, she is carried to her future home, two men holding her by the legs and two by the arms, shoulder high, amidst singing and dancing.

On the march to Taveita, Thomson's men were rejoiced by two hartebeests, a giraffe, and a zebra having fallen to the gun of the explorer. They gorged themselves with the meat over the camp fire. The men, dead beat with their killing march, were as thankful as their master to shelter themselves in the shady depths of Taveita, one of the most charming forest tracks in the whole of East Africa. It occupies a depression near the south-east corner of Kilima-Njaro, at a height of 2400 feet. The

banks of the snow-fed Lumi present a glorious mass of vegetation, while the near presence of the snow-capped Kilima-Njaro Mountain keeps the air cool and pleasant. The natives here, they found peaceable and hospitable. About 60,000 strings of beads had to be made up for purposes of barter amongst the Masai, and ready-made dresses had also to be concocted. In spite of the most fearful penalties, nearly an entire load of beads was stolen by the men who had undertaken to string them, and Thomson was in desperation. But severe measures made them a little more honest. Save for these troubles with his men, however, the explorer's life while resting at Taveita was pleasant, there being abundance of food, while agreeable strolls could be enjoyed in the woods in the evening.

During one of his forest walks, Thomson saw the great volcanic mountain called Kilima-Njaro for the first time. He describes it as a great irregular pear-shaped mass, the central portion running for nearly sixty miles into the Masai country. Its highest point is called Kibô, standing nearly 20,000 feet above the level of the sea. Not unfrequently the upper part of Kibô is seen in mid-heaven, cut off apparently from all earthly connection, shining clear and bright, with its snowy cap flashing under the tropical sun. The next lower conical peak is called Kimawenzi. The savage, as he stands awe-struck before the grandeur of Kilima-Njaro, calls it, in his own language, the 'house of God.'

Thomson was now assured by traders who had recently returned from the Masai country, that no

one dreamed of passing through it with less than three hundred men, and always more when possible. The funds at his disposal would not admit of his so enlarging his caravan, but he engaged a second guide and interpreter. This guide and the one he had previously engaged, both turned out arrant scoundrels, who deceived and misled him whenever they could. After leaving their comfortable quarters at Taveita, Thomson's party journeyed on, with faces set towards the Masai country, when the astounding news reached them that a great war-party of Masai, about two thousand strong, was directly in front of them. Selecting a suitable halting-place near the residence of the chief Mandara, Thomson had an interview with him, was impressed by his princely bearing and evident intelligence, but was compelled, sorely against his will, to leave behind him a selection of his personal effects, including his own gun, and a complete suit of clothes. He took the opportunity, while in this part of the country, of ascending the sides of Kilima-Njaro, to a height of 9000 feet. This took him seven hours of climbing, the most severe he had ever experienced.

Several marches over a beautiful country brought him amongst the kraals of the Masai, only to find that he had been deluded and entrapped. The people were angry that they had not annihilated Dr Fischer, a previous explorer, and were now threatening to take revenge on the party of Thomson. In the first place, the natives relieved him of nearly ten loads of goods; and then news reached him that he would be attacked, so there was nothing for it

but to hurry back to his former quarters at Taveita, and from thence to the coast, whence he had started.

On his return from the coast to Taveita, he was fortunate enough to attach himself to a large caravan about to start in a few days for the interior, and to adopt the route to the east of Kilima-Njaro, his former journey having been round its western base. Full of hope, Thomson and his party advanced for a second time into the Masai country, and on crossing the frontier, they were delighted to learn that all the warriors in that region had left on a war raid. After rounding the mountain their route lay over the plain of Ngiri, the bottom of a dried-up lake. In appearance it was a great level plain without a blade of grass, with here and there sheets of water surrounded by rings of green grass. Other tracts were covered by an incrustation of natron and salt-petre from the springs; the giraffe, wildebeest, and zebra, and various other animals were frequently seen. In three days he shot, while on the march, three zebras, three rhinoceroses, four pallah, and one waterbuck, two jackals, and several guinea-fowl. On one occasion he got a fearful scare by nearly falling over a leopard, which was equally intent, with himself, in watching the game.

The Masai have the curious custom of spitting upon one another at meeting or parting, and as Thomson was considered a great medicine man, they flocked to him in order that he might spit in their faces. With the aid of occasional draughts of water, Thomson was equal to the demands made upon him. Four marches across the Ngiri plain had brought them

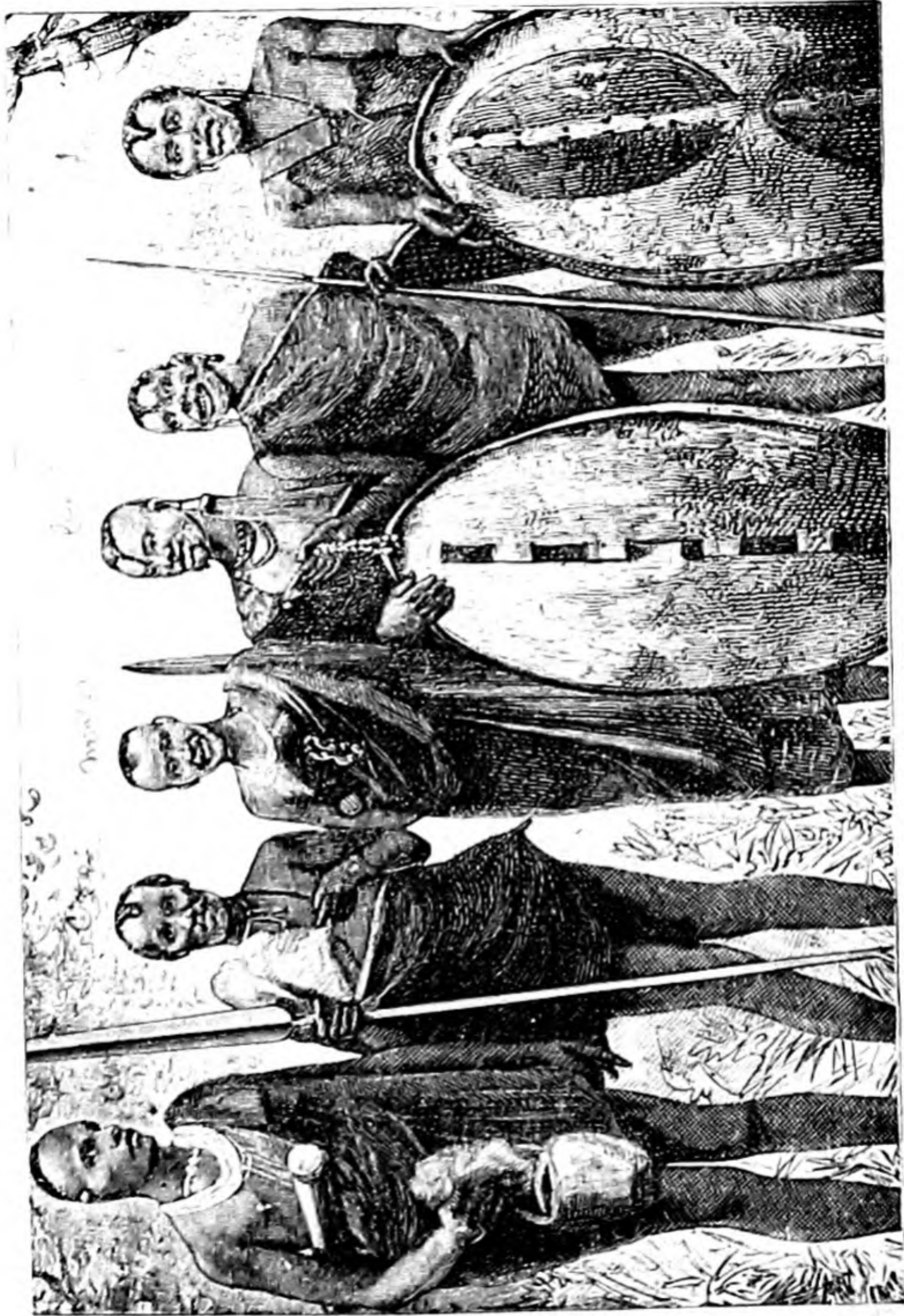
well into the country of the Masai, where they met the natives in considerable numbers, and then their miseries commenced.

They had to submit with the meekness and patience of martyrs to every conceivable indignity. Though their noses had been pulled, they would have been obliged to smile sweetly. A strong thorn fence was raised as a protection to their camp. Inside, their goods were further protected by an inner circle, to conceal them from prying eyes. In spite of the men who guarded the entrance, the natives would push themselves forward, and swagger into Thomson's tent, bestowing their greasy, smelling bodies, besmeared with clay, on the bed, or wherever they pleased. Begging began at once, and string after string of beads would be given away in order to quicken their departure. No man could lay aside his gun till nightfall, after which food was cooked, the gate closed, and a night guard appointed. As night went on, tongues would be loosened, and general animation aroused, only now and then broken by a prowling Masai thief. The stir of the camp would be at its highest three hours after sunset, and then die away as the porters, gorged with their evening meal, sank one by one to rest. Then only the horrible laughing of hyenas, the roaring of lions, and the cries of jackals or wild dogs were to be heard in the midnight air.

The Masai people are a remarkable race, and the most splendidly modelled savages Thomson had ever seen or heard of. The women were decently clad in bullock's hide, with from twenty to thirty

pounds weight of thick iron wire coiled round the limbs, arms, and neck, besides a great assortment of beads and iron chains. The men wear only a small kid-skin garment round the shoulders and breast. The boys and girls live with their parents up to a certain age, and feed upon meat, grain, and curdled milk. The girls at the age of twelve, and the boys at the age of from twelve to fourteen, are sent from the married men's kraal, and both sexes live together until they are married. Before this time the men are warriors, and their only occupation consists in cattle-lifting abroad, and in amusing themselves at home. The young women attend to the cattle, build the huts, and attend to the household duties. Both young men and women eat nothing but meat and milk; no spirits, beer, tobacco, or vegetable food being touched. For several days at a time they live on meat alone, then they betake themselves to milk. On killing a bullock, they drink the blood raw. The men seldom marry until past the prime of life. Then the war-spear and heavy buffalo-hide shield are laid aside. They wear the dress of an unmarried woman for a month or two, and after that settle down and go no more to war. The warrior now indulges in vegetable food, drinks beer or spirits, and uses tobacco. In the case of a death among this people, the body is simply thrown to the hyenas and vultures.

The people are divided into a dozen different clans and many minor tribes, the bond of union amongst them being the *lybon* or soothsayer. They



Masai Warriors.

are eminently a pastoral people, their wealth consisting in cattle, sheep, goats, and donkeys. The Masai believe in the existence of an invisible God, and nothing is undertaken, as Thomson tells us, without hours of crying to their God. They believe also in witchcraft and in the magical powers of the *lybon* or soothsayer.

As we cannot follow the explorer in every detail of his journey, we must content ourselves by saying that he steadily made his way northwards through the plundering Masai, that he visited a small fresh-water lake named Naivasha; named a range of mountains extending from north to south, and about 14,000 feet high, the Aberdare range after the president of the Geographical Society; and that finally, with goods exhausted, and driven almost mad with days of worry and nights of incessant watchfulness, he found himself triumphantly standing at the base of Mount Kenia. This mountain he describes as a great volcanic cone, nearly thirty miles in diameter at its base, rising from a thorn-clad plain. Up to a height of 15,000 feet the angle is very low, and the slope is unbroken comparatively by ridge or glen. At this elevation the mountain suddenly rises into a sugar-loaf peak, crowned with glittering snow. He was not allowed much time to examine it. The Masai were in great numbers; his goods were finished, and they were obliged to live on the most atrocious food imaginable. A strange disease had attacked the Masai cattle, and was carrying them off in myriads, and their customary mode of travelling

was with fingers holding their noses through a country covered with decomposing bodies. As a result, the people were dying of hunger, and they were obliged to fly from them.

On the sixth day from Mount Kenia, Lake Baringo was sighted, and on the 10th December, he had the supreme satisfaction of drinking the waters of Victoria Nyanza, some forty-five miles east of its outlet to the Nile. He would have pushed on to this latter river, but his stores were exhausted, and he was attacked by fever. Adopting a return route by a more northerly district, he visited a mountain called Elgon, which has an extraordinary number of artificial caves, or mines, tunnelled out of the volcanic rock.

Mr Thomson's narrative is enlivened by various hunting adventures. On one occasion his career was nearly cut short by a rhinoceros. He had just shot an antelope, when an exclamation from his man Brahim caused him to turn round: 'With rifle brought to the "ready,"' he says, 'I looked in the direction indicated, and there, true enough, was the great monstrous shape of a rhinoceros moving leisurely along through the tall grass. With a glance around to take in the lie of the land and the direction of the wind, I was off with bent body and palpitating heart to intercept my victim. We were soon within fifty yards of the ungainly brute, which, as it slowly moved onward with head low down, was quite unaware of the enemy in front, or the danger it was running into. By this time, however, I myself began to

have somewhat unpleasant sensations, and to wonder whether my game or myself was in the greater danger. I concluded that the odds were decidedly against me, and wanted accordingly to fire at once, so long as there was a chance of escape. My man Brahim, however, did not know my inward feelings, and as he had greater faith in my shooting powers than myself, he made me hold on a bit till it came nearer. Beginning to feel dreadfully shaky, though ashamed to be outdone in coolness by my servant, I waited with dread expectancy. My heart throbbed with wild pulsations, my fingers twitched, great drops of perspiration trickled down my face, and then with a general want of "backbone," I counted each footstep. If a glaring eye can fix any animal, surely that dreadful creature might have been petrified by mine. Then ten yards were passed, and I began to read mischief in the monster's eye. For once I wholly lost faith in myself. The suspense was intolerable, and the rhinoceros, seeming to enjoy the fun, lengthened the period out as much as possible. At last I could stand it no longer. Steadying my arm on my knee, I fired my "infant." The dull thud which followed told me I had not fired in vain. As I gathered my wits together, I saw that the lumbering creature was spinning round, evidently dazed. Immediately, however, it recovered itself, and went off at a grand, steady pace. On seeing my adversary's tail waving in the breeze, I became as brave as I had formerly been shaky, and, with nerves braced up by seeing the rhinoceros running away, I gave it two other bullets from my



'HE WAS TOSSED SKYWARD.'

express rifle. Yelling out to Brahim to follow, I went off pell-mell in pursuit, with eyes steadily fixed on the game. The consequence was that I soon battered my nose and nearly broke my leg by falling into a hole. Recovering myself with an exclamation of disgust, I tore along again, to get sadly bruised a second and then a third time. The rhinoceros soon showed signs of exhaustion, and at last I contrived to head it, and having in my excitement lost all caution, I went right for it, and gave it another ball.' This made the animal charge him, and giving a jump backward, in a moment he was sprawling on the ground, having fallen over a bush. He was at the brute's mercy; next moment there was a shaking of the ground and a crashing of bushes, a dark body went lumbering past, and he rose up breathless but unhurt. Soon afterwards the huge animal fell down, to die.

The last day of the year, in journeying to the coast, was a memorable one to Thomson. He had planted, he tells us, six balls in various parts of an old buffalo bull for the purpose of supplying his company with meat, duly to celebrate the day. These had been sufficient to bring the animal to the ground, and thinking its days ended, he went up to secure the prize. A few seconds later, and Thomson went up in a sense he had not anticipated. Caught on the horn of the infuriated brute, he was tossed skyward by it, and turning a graceful somersault in mid-air, he came down unconscious. The shock of the fall brought him round somewhat, and raising his head slightly, he found himself under the disagreeable gaze of the

bull. Seeing him move, the buffalo was about to come forward and finish him off, but fortunately at this moment a gun was fired by his faithful servant Brahim. This had the effect of momentarily diverting the buffalo's attention, and as he turned round, Thomson staggered aside, and simultaneously they dropped, the bull dead and Thomson fainting from loss of blood. At night he had recovered sufficiently to celebrate in buffalo soup the end of the year; but next day he had to be carried on a litter.

In this journey homewards to the coast, Thomson had various misfortunes: he only recovered from fever, as we have seen, to be nearly killed by a buffalo, and he had only got over the effects of that adventure, to fall a prey to dysentery. For two months at one part of his journey he hovered between life and death; his sole food was clear soup made from diseased meat supplied by the Masai. He lost all count of the days. Owing to the wet and bitter cold, he was compelled to shut himself up in a dark grass hut without fire or light, when he could not drag himself even to the door. Finding himself getting no better, and concluding he was bound to die if he remained there, a hammock was rigged up, and the march to the coast was continued. Then he began to improve. At last, in the beginning of June 1884, he reached the coast, having penetrated through the most dangerous tribes of Africa, without losing a single man by violence, or being under the necessity of shooting a single native.



THREE YEARS WITH GREEELY.

IN common usage, the term Arctic regions means those countries within or near the Arctic circle which are subject to such degrees of cold that the seas are frozen in winter, and it comprehends all the extreme north of Europe, Asia, and America.

The climate of the Arctic regions is, as a whole, extremely cold. In summer, however, the sun beats down with considerable power, and the weather is warm and even sultry. During several months of winter, varying according to the latitude,

the sun entirely disappears below the horizon, and darkness reigns. Snow covers the ground to the depth of several feet; the soil, when such exists, freezes to a considerable depth, and all nature is dormant. But some compensation for this general dullness is found in the beauty of the sky, in which the moon and stars shine with enhanced brilliancy, and the coruscations of the aurora borealis relieve the darkness of the winter, which is there but one long night. The cold is intense, but the air is free of moisture, and the climate accordingly perfectly healthy. In spring, the sun appears again, and it is at that season that the cold is most acutely felt. The air is raw, and the moisture in it is converted on very cold days into a fog, composed of sharp spiculæ of ice, which cut like lancets, so that the whalers call such a fog 'the barber.' Through the fog appear mock-suns and mock-moons, and all the phenomena arising from refraction are exhibited on a gigantic scale. Ships may be seen as if upturned in the air, sailing past inverted icebergs. Then succeeds the long summer day, during which the sun never sinks beneath the horizon for months at a time. Continuous daylight reigns. This is the season when ships sail into these icebound regions. The snow clears off the ground, and where there is any soil, vegetation appears.

Greenland is an extensive tract of land, the known part of which is of a triangular shape, with the apex pointing southward, and terminating in Cape Farewell, in 60° N. lat.

Between Greenland and the opposite coast of

America lies Davis Strait, the upper part of which is called Baffin Bay. This is further prolonged towards the north-east into a channel called in its southern part Smith Sound, and in the north, Kennedy Channel. The land on the west shore of this channel—Ellesmere Land and Grinnell Land—is believed to be unconnected with Greenland, and the channel itself is supposed to open into the Polar Sea.

The pioneers of Major Greely in Smith Sound were first of all, John Davis, of Sandridge, in 1585, and William Baffin, who sailed from Gravesend in 1616 in the *Discovery*, a craft of only fifty-five tons. In 1818, Ross and Parry sailed northward from Lerwick; and from his observations Ross concluded Smith Sound was a closed bay. Captain Inglefield, in 1852, first determined its size, laying down six hundred miles of coast. Recent expeditions have sought to reach the pole by way of Smith Sound, at the head of Baffin Bay. In 1853, Dr Kane, an American, pushed as far north as lat. 80° or 81° . Dr Hayes, another American explorer, following the same track in 1861, reached perhaps the lat. of $81^{\circ} 35'$. But both were outstripped by Captain Hall, who in August 1871 carried the American steamer *Polaris* to lat. $82^{\circ} 16'$, within thirty miles of the most northerly point attained by Parry on the ice. In November Captain Hall died. Little was accomplished in the way of sledge exploration; and in August 1872 the *Polaris* sailed southwards, but was beset by ice in Baffin Bay. A portion of the crew were parted from the ship, and drifted, along with

several Eskimo, southwards to the coast of Labrador, where they were picked up in April in excellent health. The *Polaris* had meanwhile been driven northwards again into Smith Sound, where the crew ran the vessel ashore and wintered. In summer 1873, having built two boats, they went south, and were picked up by a whaler in Melville Bay.

In the autumn of 1874, the English government resolved on another attempt to explore the region of the North Pole. An expedition, consisting of two steamships, the *Alert* and the *Discovery*, sailed from Portsmouth, 29th May 1875, under the command of Captain Nares and Commander (now Captain) Markham. The *Discovery* was left in winter quarters at Lady Franklin Bay in lat. $81^{\circ} 44'$, well to the northward of Smith Sound; while the *Alert* was safely carried farther north than any ship had yet floated, and wintered in lat. $82^{\circ} 27' N$. In spite of bitter and prolonged cold, and the still more formidable inroads of scurvy, the work of exploring this unknown region northward, eastward, and westward was diligently carried on; and on the 10th May 1876, one sledge party succeeded in reaching, over well-nigh impassable ice, the latitude of $83^{\circ} 20' 26'' N$., or within $399\frac{1}{2}$ miles of the North Pole. This was the highest point reached by any expedition previous to that under Major Greely.

In 1882, a series of expeditions was undertaken by various European countries and the United States, for the purpose of wintering in a high latitude, and making observations in geography, terrestrial magnetism, and meteorology. Fourteen stations

were equipped, forming a distant circle round the North Pole, and in 1882-83, valuable observations were recorded at these stations. In the establishment and relief of these stations, about seven hundred men risked their lives; but save in the case of the Greely expedition, whose fortunes we are to follow, no lives were lost. Lady Franklin Bay, to the northward of Smith Sound, was the point chosen to be occupied by the United States Signal Service as a polar station, and Major Greely of the United States army was detailed for duty in this service, Dr Octave Pavy being employed as surgeon.

Major Greely, was born at Newbury Port, Massachusetts, in 1844. In 1861, when seventeen years of age, he enlisted in the Volunteer Army, was in several engagements during the great Civil War, and was thrice wounded. At the close of the war he had attained the rank of captain, and was brevetted major for his services. Being retained for the regular service, he acted in connection with the Signal Office, in organising and constructing several divisions of the United States military telegraph lines. In 1873, he examined the Mississippi, Missouri, and other rivers, in relation to dangerous floods and overflows, and was also occupied in preparing official weather predictions for the United States, and in editing publications connected with the Signal Service. The interest he had always taken in meteorological research in the northern hemisphere, led him to accept the leadership of the United States Arctic Expedition, to which he was appointed in 1880 by President Garfield.

In the scheme for polar stations, it fell to Greely's lot to occupy the most northerly of the fourteen stations, which was in Discovery Harbour, in Lady Franklin Bay, $81^{\circ} 44' N.$ A steamer was to visit the station annually with supplies and recruits. The steamer *Proteus*, chosen for this service, had been built for the sealing trade.

The organisation and equipment of this expedition were accomplished under disadvantages. Apart from strictly service stores and supplies, there remained for special Arctic outfitting only some £1200. This was a small sum wherewith to furnish the requisite equipment of coal, boots, dogs, dog-food, fur clothing, natural history supplies, some scientific instruments, pemmican, special articles of diet, &c.; and Greely and his friends were even obliged to guarantee certain purchases, made on credit, to enable the expedition to sail in 1881.

The whole party consisted of twenty-five men, and the voyage to Fort Conger (Discovery Harbour) in Grinnell Land was short and prosperous, and speedily they erected on that shore their small wooden house, then the most northern habitation of civilised man. On 26th August 1881, the *Proteus* left them on her homeward voyage, and with wistful gaze, they watched her pass from their sight for ever. The great harbour where they were stationed, with its twenty square miles of immense ice-floes, was hemmed in on every side by precipitous heights, ranging from hundreds to thousands of feet.

Greely and his comrades at once set about preparing themselves to spend their first Arctic winter

at Fort Conger. The sun was last seen at the station on October 14, and did not reappear till February 28, 1882, one hundred and thirty-seven days later. The darkness of mid-day at Fort Conger for nearly two months in mid-winter, was such that the time could not be told from a watch held up with its face to the south. In order to help their stores a little, a number of musk cattle were killed, and this supplied them with sufficient flesh meat till the ensuing summer. These animals were to be seen feeding while the ground was covered with snow, moving about from one patch to another, and scraping the snow from the moss with their feet.

Various methods of relieving the monotony of the Arctic winter were adopted. A tri-weekly school was kept up, and a newspaper was also conducted for a short period. The library was a large one, comprising about seventy-five volumes of Arctic works, many encyclopædias, about a thousand novels, magazines, and books of a light character. One of the party had a violin, another an organette, while the monotony was broken occasionally by a course of lectures. Yet notwithstanding all these efforts to break and enliven the weird monotony of their lives, it was observed that during December, a number of the men showed symptoms of being mentally affected. Christmas Day was kept in capital style, and the capacity of their cooking-range, with its large ovens and hot-water boilers, was thoroughly tested. There was a splendid dinner, followed by an amateur theatrical entertainment; while every officer and man received a Christmas present of some sort.

With the new year came evidences that the worst of the wintry ordeal was past, the men being all in much better health. This satisfactory state of matters was largely due to strict attention to the food-supply, which was liberal, excellent, and varied. Their food consisted of condensed milk, butter, oatmeal, cheese, macaroni, eggs, and preserved fruits and vegetables of many kinds. In addition to breakfast at half-past seven A.M., and dinner at four P.M., two lunches were provided.

As spring drew near, active preparations were made for sledging expeditions. The outfit for sledging included a pair of seal-skin gloves on the hands; and a leather woollen-lined cap, with a turn-down attachment. The nose was only kept from freezing by frequent applications of the warm hand. Greely recommends that goggles of neutral-tinted glass should always be worn over the eyes during long journeys. The men had sleeping-bags of well-tanned buffalo hide; for additional warmth, each bag was adapted to hold two, or at the most three persons. Common army tents were used for field service, and in these were spread rubber tent cloths. Seven Eskimo dogs were sometimes used to drag a sledge load of about seven hundred pounds. In one of those trips an incident occurred which showed the kindness and considerateness of an Eskimo, called Jens Edward. Sergeant Linn being unwell on entering his sleeping-bag, had fallen asleep before Jens, his bedfellow, had finished his work. The Eskimo, unwilling to disturb him, actually slept outside the bag, without other covering than his

fur travelling suit, rather than awaken Sergeant Linn. The kind Eskimo escaped with but one toe slightly frost-bitten.

The sledge journeys in Grinnell Land disclosed a broken, rugged country, intersected by a system of fiords and lakes, which readily drain, during the short Arctic summer, the slight snow-fall. The valleys, which were bare of snow, had considerable vegetation, which served as pasturage for game. One sledge journey under the leadership of Lieutenant James B. Lockwood, must rank as the greatest in Arctic history, when the most northerly point was reached that has ever been visited by civilised man. The difficulties and hardships of this journey were great, and the cold was most intense. The advance sledge was hauled by dogs, with an Eskimo as driver. The supporting sledges were drawn by the men who accompanied the expedition.

Early in the journey the cold began to tell upon the men. Their sleeping-bags were like iron, and sleep was out of the question; one of the men even had his toes frozen while in his sleeping-bag. At one place severe storms impeded their progress; and they spent forty-five hours in their sleeping-bags suffering discomforts which only those who have undergone similar experiences can realise. In order to protect himself from the storm, Lieutenant Lockwood dug a small hole in a snow-bank and crawled in. On coming out, his dogs were almost concealed by the snow-drift. Near Boat Camp, a succession of violent storms rendered it almost impossible for the party to do work of any kind.

Their tents were blown down, their travelling gear scattered, and their travelling bags were frozen so hard that it required the strength of four men to open them. The dogs made the most of their opportunities at this time, and impoverished the stores by stealing about forty pounds of bacon and beef. They did fourteen or fifteen hours of daily work, whether in storm, with driving snow, or in clear calm weather, and reached Cape Bryant in thirteen journeys. They pushed forward, and made their farthest camp at the north end of Lockwood Island. Sergeant Brainard wrote in his diary of this feat: 'We have reached a higher latitude than was ever before reached by mortal man, and on a land farther north than was supposed by many to exist. We unfurled the glorious Stars and Stripes to the exhilarating northern breezes with an exultation impossible to describe.' Here a cairn was built in which some records were deposited. Lieutenant Lockwood and his party passed a day and a half at Lockwood Island—the farthest point by land or sea ever attained by civilised man—in $83^{\circ} 24' \text{ N.}, 40^{\circ} 46' \text{ W.}$

Looking from an elevation of nearly 3000 feet, it was evident that no land existed within a radius of sixty miles to the north or north-westward, but to the north-east the Greenland coast yet trended, ending to the eye at Cape Washington in $83^{\circ} 35' \text{ N.}$ To Greenland was thus added a hundred and twenty-five miles of new coast, excluding the fiord lines, and from Cape May the mainland was carried a degree of latitude to the

Shoul

northward. In carrying Greenland ten degrees of longitude farther to the eastward, Lieutenant Lockwood left but sixteen degrees for his successors to fill in. The new land is composed of high precipitous promontories along the coast, and equally broken country inland, in which but three glaciers were seen.

The inland condition of Grinnell Land proved most extraordinary, as developed during Greely's own journeys, and as supplemented by Lockwood in his trip across Grinnell Land to the Western Polar Sea. There exists from Robeson and Kennedy Channels westward to Greely Fiord and the Polar Sea, a series of fertile valleys, clothed with vegetation of luxuriant growth, whereon pasture large herds of musk oxen. Over a hundred of these interesting animals were killed, and over two hundred others were seen. The boundaries of this fertile region are equally extraordinary. To the northward an ice-cap of several thousand square miles bursts through every gap in the Garfield and Conger Mountains in the shape of large glaciers, one of which, Henrietta Nesmith, has a front of five miles, and a perpendicular face from one hundred and fifty to two hundred feet high. To the southward a yet more remarkable ice-cap covered the land for several thousand square miles, stretching between Archer and Greely Fiords, nearly ninety miles, with an average perpendicular front of one hundred and fifty feet. The result of the expedition's work in Grinnell Land alone gives information as to the physical condition of over

five thousand square miles—an area equal to the entire land discoveries of the expedition of 1875-76.

The Eskimo dogs were very useful in drawing the sledges; and here are some traits of those hardy animals. Lockwood, as he awoke one morning, saw a small pemmican-bag slowly but surely moving out of the tent. Astonished at this, he rubbed his eyes and looked more carefully, when he saw the head of a dog protruding from the snow, the teeth of which were fixed in one corner of the sack containing the flesh. The dog's eyes were steadily fixed upon him, but head, eyes, and teeth vanished as he looked. The dog had burrowed a hole through the snow, and had inserted his head just far enough into the tent to lay hold upon the sack. On another occasion, in a mad rush to secure their breakfast, the dogs nearly upset the tent. Their wolfish propensities were aroused, and neither blows nor Eskimo imprecations were of any avail until food was thrown to them. One dog, attracted by an odour of grease about the cover of a book, bit out a third of the pages, and had apparently swallowed them. Another dog seized a large dish rag that had been thrown out with the water, and immediately swallowed it.

The novelty of Arctic service having passed off, the second winter did not go by quite so agreeably as the first. The steamer which was to bring fresh stores had not arrived, and this, with a curtailment of the supply of food, threw a gloom over the whole party. Fortunately the health of the men

continued good. Towards the end of October, Dr Pavy was sent south to examine the coast for any relief vessel. Spring found them with health and spirits unimpaired. So far all had gone pretty well with them, in marked contrast to the last year they were doomed to spend in Polar latitudes. At the end of two years' service, within eight degrees of the Pole, they had no serious frost-bites, no dangerous sickness, no scurvy, and no disaster.

Considering sledging in a scientific expedition as the commander's duty, Greely travelled over six hundred miles without dogs. Lieutenant Lockwood travelled nearly twelve hundred miles with dogs, and four hundred without. Sergeant Brainard's total journeys must have reached two thousand miles, as he was not only Lieutenant Lockwood's faithful associate in the farthest north and the crossing of Grinnell Land, but also did other work. Greely's personal explorations necessarily covered brief periods, as he allowed them in no way to interfere with all possible work by his subordinates.

In accordance with the original orders of the government at Washington, that if no relief vessel should appear, the party were to move southwards, Major Greely at length ordered a retreat from Fort Conger in the summer of 1883. Their means of transportation were a small steam-launch called the *Lady Greely*, a little larger than a whaleboat, and three small boats. With these they made their journey, finding clear water only in part of Kennedy Channel. They followed the general contour of the Grinnell Land coast-line, being nearly

always obliged to run inland to cross the numerous bays. In this journey, great dangers, perils, and privations were experienced. Strong north-easterly gales drove them, pressed by a grinding pack, against the high ice-floe, daily threatening to destroy their boats and leave them helpless. At times, when occasional south-west winds opened narrow lanes along the coast, they were never free from rough heavy ice, which was dangerous alike to boats and life. The unprecedented cold of August embayed them at one time for four days, and finally beset them permanently midway between Cape Hawks and Victoria Head. For thirty days they lived on a moving pack, subject to all the discomforts, dangers, and privations incident to life on a floe, which were intensified by a series of violent gales. Here the launch had to be abandoned, and two boats taken.

In Kennedy Channel they passed through an immense iceberg which had grounded and split. 'The narrow cleft,' says Greely, 'afforded perhaps the most wonderful passage ever traversed by any voyagers. Scarcely a dozen feet wide, it was over a hundred yards long, and its perpendicular walls of opaque ice on each side reached full fifty feet skyward above our passing boats. I recall no other weird mass which has so impressed me with the grandeur and scope of nature's forces and works. Its slow growth had probably required a thousand years.' After they had worked and struggled over three hundred miles, beset with ice of dangerous size, they reached a secure harbour at Cape Hawks,

looking southward for fifty miles to Cape Sabine. Five weeks before their arrival, the relief vessel, the *Proteus*, though unknown to them at the time, had sunk in the sea close at hand.

Their troubles now began in earnest; they were so beset with ice, that farther progress was rendered difficult and dangerous. It occurred to Greely that they should endeavour to reach Cape Sabine, where they had some hope of meeting the relieving steamer, by travelling over the ice. The steam-launch had to be abandoned, and they betook themselves to the sledges. Sometimes the men got so exhausted with hauling the sledges and struggling with the weather, that they slept on the bare ice; their sleeping-bags, too, would get filled with drifting snow, and saturated with spray from the huge waves that came dashing against the edges of the floe upon which they had taken refuge. The day would have to be passed in the sleeping-bags, listening to the roar of the waves and howling wind, and thinking upon their helpless condition.

Their situation on September 25th was extremely critical, as the wind increased in violence, and was drifting them off shore towards the centre of Smith Sound. Daylight on September 26th revealed land fully six miles away, and for a third of the distance the sea was covered with broken ice, through which no boat could be forced, and the seething, foaming ocean would have swamped them in a moment. Although the floe on which they stood was from forty to fifty feet in thickness, yet it trembled and cracked like chalk under the tremendous pressure of the surround-

ing floes. 'As the edges of these immense masses of ice ground against each other,' says Greely, 'with terrible groanings and almost irresistible force, their margins were covered for several rods with thousands of tons of broken ice.' At length, after a retreat which had occupied fifty-one days, the party landed at Eskimo Point, in Band Isle, on the 29th of September, the whole party being still in health, and with undiminished numbers.

The building of stone and ice houses at the place which they called Camp Clay, was commenced in the beginning of October. The site of their camp was on a small promontory, about four miles from Cape Sabine. The winter-house, which they entered, November 1, 1883, when completed, was twenty-five feet long by seventeen wide, with broad walls made of stone. A whaleboat was placed on the top, upside down; while the canvas tent and sails were stretched across this for a roof. There were no windows in the house; the only light they had was an Eskimo blubber lamp, which was lighted for an hour each day. Lieutenant Lockwood indicates their condition at this time by writing: 'Our tea is extremely weak. This is a miserable existence, only preferable to death. Get little sleep day or night, on account of hard sleeping-bag and cold.' He considered that the three chances for their lives now were either the finding of an American store of provisions deposited at Sabine or at Isabella, the crossing of the straits when their present rations were gone, or the shooting of sufficient seal and walrus there to last during the winter. For a time

Major Greely himself slept out, while another man occupied his sleeping-bag.

When they went into winter quarters, their constant talk was of something to eat, and the different dishes they hoped to enjoy on getting back to civilisation. Often their thoughts would wander homeward to their dear ones. They only got about one-fourth of what they could have eaten at a meal, and were constantly hungry. A journey undertaken to Cape Isabella for one hundred and forty-four pounds of English meat stored there, was almost fatal to one of the men named Ellison, whose hands and feet were frozen. He became helpless, they had to abandon the meat, and after a ten hours' struggle, brought him to an abandoned camp, where they managed to kindle a fire to thaw his frozen limbs. His clothing was a perfect sheet of ice; and when his face, hands, and feet were thawed by artificial heat, his sufferings were such as to bring the strongest to tears. As they were unable to haul Ellison back to headquarters, one of them started for assistance, eating some frozen beef by the way. They were at last relieved. Ellison's hands and feet were frozen solid, and although he begged piteously for death the first week, yet he eventually recovered, but only to perish afterwards on the way home to America.

Winter began with a miserable outlook; through mismanagement and failure of the American relief expedition, they had no succour from their own country. They began by eating the mouldy bread, rotten biscuit, and damaged stores, leaving the better

food for a later period. Blue foxes and other game were shot now and again, which helped the provisions. As the entire work of the party did not require more than an hour's labour from two or three, the remainder, by choice or necessity, remained almost continually in their sleeping-bags. Greely, in order to rouse the spirits of the men, began to lecture daily on the resources and physical geography of the United States. Sometimes he would talk for an hour or two on the grain and fruit products or the food imports of the United States; or a reading was given from a few odd volumes which they had preserved. In the evening the Psalms for the day were read, a practice kept up by Greely from the beginning.

When the meals were being prepared, the hut was filled with a dense cloud of smoke which nearly suffocated them. The men became sullen, and even surly, and one of them remarked that he would be surprised if they did not go mad. Complaints were made that after the Eskimo lamp was put out, some one was in the habit of scraping the rancid seal-oil out and eating it. Towards the end of January 1884, they had their first funeral; and after the poor man was buried, it was found that he had saved up a quantity of bread and butter to celebrate his birthday. In their hunger, the men began to chew the old tea-leaves, but were forbidden to continue doing so by the doctor; and the bluntness of their taste may be imagined from the fact, which in happier circumstances would have been amusing, that on one occasion the cook forgot

to put tea in the teapot, yet no one detected the omission.

In the beginning of March 1884, an attempt was made to cross Smith Sound, but the fates seemed against them; there was an open channel, no game, no food, and apparently no hopes from Littleton Island, where they expected supplies. If they had been the strong, active men of the previous autumn, they might have crossed Smith Sound, where there was much open water; but they were now a party of twenty-four starved men, of whom two could not walk, and half-a-dozen could not haul a pound. It drove them almost insane to think of the future. As the provisions were doled out, and were nearer being exhausted, Greely saw that only a supply of game could help them. A net was made to catch shrimps, which helped the food of the camp. The spirits of the party in the face of death were wonderful. A really depressing time began with the death of one of the Eskimos; this was followed immediately by two more deaths. Then Lieutenant Lockwood succumbed, passing away calmly and peacefully.

A bear was shot in April, which was a piece of great good fortune. Greely, towards the end of that month, felt his heart severely affected, and believed his end to be near. May, which opened with a snowstorm, found him weaker, and hourly expecting to pass away. The rations of bread were finished, and there were more deaths from starvation. Saxifrage was mixed in their stew to eke it out; dinner would sometimes be a handful of saxi-

frage, two or three spoonfuls of shrimps, and a little tea. Such entries as the following became common in Greely's journal: 'Israel is now in an exceedingly weak condition, and unable even to sit up in his bag. I am compelled to raise him and feed him, which is a tremendous drain on my physical strength. He talks much of his home and friends, and seems thoroughly reconciled to go.' Writing even became a great labour, and the explorer's entries grew more and more meagre, until they finally ceased, just as help was at hand.

The third Arctic summer found fourteen survivors out of the original twenty-five. The thawing of the glacier above the camp caused them to move to higher ground, where the tent was pitched, in which they were found by the relief expedition. The deaths now become more frequent. To the shrimps and game they could secure, were added some lichens. 'Our condition,' says Greely, 'grows more horrible every day. No man knows when death is coming, and each has long since faced it unmoved. Each man who has died has passed into the preliminary stages of mental, but never violent, wandering, without a suspicion that death has marked him.' Greely never composed himself to sleep without the feeling that he might never again awake to consciousness. A painful duty was performed by Greely in the beginning of June. He issued a written order relative to Private Henry, who had been found repeatedly guilty of stealing the provisions of the party, while all of them were slowly dying of starvation; when discovered again,

he was to be shot. Notwithstanding this threat, he was again found stealing shrimps, seal-skin thongs, and seal-skin, and the apparently severe sentence was at once carried into effect.

An entry by one of these sufferers throws a strong light upon the miserable condition to which they were now reduced. He says: 'Although Henry has told before his death that I had eaten a lot of seal-skin, yet, although I am a dying man, I deny the assertion; I only ate my own boots and a part of an old pair of pants. I feel myself going fast, but I wish that *it* would go yet faster.' Greely himself was reduced to eating seal-skin thongs in a stew, along with reindeer moss and lichens. On June 9th, he had only lichens, tea, and seal-skin gloves to dinner.

The men who died at this time were simply buried in the cracks of the ice, as none of the party were strong enough to dig a grave. Lockwood had been buried in his officer's blouse, and it was noticed that the buttons projected above the mound, and the wind and gravel scoured them so, that, as they passed, the sunlight on them would dazzle their eyes. On some of the bodies were found from eight to eleven suits of clothes. During the winter months, suit after suit had been added from those who had died, and when spring came, they were too weak to take them off. The oil-tanned skin from one of the sleeping-bags was issued to most of the party on June 15th; it was roasted or boiled according to taste; and this, with a few lichens or shrimps, was their miserable diet. A gale on the 21st prevented them cooking even this poor fare.

On the morning of the 22d June, they were all utterly prostrated; and near midnight Greely heard the whistle of a steamer, apparently to recall an exploring party. The tent in which they were now sheltered was partly blown down, but two of them succeeded in crawling from under its folds, and reaching the top of a hill near by. They saw nothing at first; but one of them crept higher up the hill, and caught a sight of the relief steamer. In his joy he raised the signal flag, which consisted of the back of a white flannel undershirt, the leg of a pair of drawers, and a piece of blue bunting tacked to an oar. The effort was too much for him, and he sank exhausted. One of the relief party got information from him as to the whereabouts of the poor men, who had now resigned themselves to despair. Suddenly strange voices were heard calling Greely, and he and his comrades realised the happy fact that Captain Schley's party from the *Thetis* had found them, and that they were SAVED.

In reply to the ice-pilot's question, on reaching them, 'Is that you, Greely?' a feeble voice replied, 'Yes; cut the tent.' The pilot did so, cutting it open as high as he could reach. It was nine o'clock at night, and there was not light enough to see plainly what lay before him, but he was warned to be careful and not step upon those who were lying on the floor of the tent. Greely was found lying under the folds of the tent, with the fallen poles across his body. One man was standing; two others lay on either side of the opening, one apparently dead. On being dragged out, Greely was so weak

that he could hardly swallow the crumbs of bread given to him in the smallest pinches. They found that one of the two men lying on the floor had both hands and feet frozen off, and that the other was dying. It took the utmost firmness on the part of the surgeons of the relieving vessel to deal with the starving men, as the sailors in their mistaken kindness persisted in feeding them when no one was watching.

The *Thetis* arrived safely in America with the five survivors, out of the original twenty-five men; and soon the civilised world knew by telegraph the sad fate of the Greely Arctic expedition of 1881-84. Two volumes containing a record of his experiences, *Three Years of Arctic Service* (London: Bentley), were published by Major Greely in 1886.





GENERAL GORDON.

BRITAIN has had many sons that have worthily done their duty in her service both in peace and war; but not one of them has left a purer and nobler name than General Gordon. His life is one which all his countrymen should know, and it forms an example of courage and self-denying effort which all should desire to imitate.

Charles George Gordon was born at Woolwich in 1833. On his father's side he came of a race of soldiers that had distinguished themselves in many parts of the world; and to this strain in the family pedigree may perhaps be traced the heroic and military spirit of their descendant. On the mother's side, Gordon's ancestry connected him with the commercial world; his maternal grandfather, Samuel Enderby, having been an eminent shipowner of London. It may not be without interest to mention that it was from one of his vessels that the tea was thrown into the sea in Boston harbour in 1773—a memorable incident, which gave the signal for the American War of Independence. Young Gordon's father and mother

were themselves remarkable persons, of sterling character, and careful that their son should be trained into a good and capable man. He was educated at Taunton, and afterwards at the Royal Academy, Woolwich; and entered the army as an officer of the Royal Engineers in 1852.

Charles Gordon first saw active service in the Crimea, where he arrived on New-year's Day 1855. His work was among the trenches during the long and tedious siege of Sebastopol; and here, even in his subordinate position as a young officer of engineers, he did his duty eminently well. He was vigilant and energetic, and particularly noted for his quickness in discovering the movements of the enemy. On the testimony of a distinguished officer under whom he served, we are told that he was always 'sent out to find what new move the Russians were making.'

After the Crimean war was ended, and after some years of further service of less importance, Gordon was sent to China in 1860. Here he fought in the war carried on against that country by the allied French and English; and it was on the conclusion of peace that the first opportunity occurred for calling forth his marvellous gifts as a leader of men. This was in so effectually helping to suppress the great Taeping rebellion in China.

The Taepings were a host of savage men, numbering hundreds of thousands, who had rebelled against the Chinese government, and who had devastated many of the most flourishing provinces of the Empire. Originally the rebels might have had

good cause for discontent with their rulers, who were both cruel and negligent; but nothing could excuse the barbarity with which they waged war against their own countrymen. Wherever they marched, their course was marked by disorder, havoc, and brutality of the most revolting character. The people were massacred, driven from their homes, reduced to starvation, and even to cannibalism. This calamitous condition existed for years; the Chinese government having been unable to remedy it.

It was under those circumstances that the Chinese government requested the appointment of a British officer, who should take the command of a native army against the rebels. Such a force, officered by Europeans, and boasting the title of the 'Ever Victorious Army,' already existed; but it had not done much to justify its name. Gordon was recommended to the command, and accordingly in 1863 he commenced operations against the Taepings. His force could hardly be called an army, as it never numbered more than five thousand men. The officers were Europeans of almost every nationality, and of very indifferent character; and the best of the private soldiers were captured rebels.

Yet, with men of such an unpromising character, Gordon had the most extraordinary success. By the skill and rapidity of his movements, he completely baffled the rebels, capturing town after town, defended though these were by forces far outnumbering his own. His greatest feat was the taking of Soochow, which was defended by eighty-

thousand men. He was assisted by an army of imperialists; but the burden of the fighting always fell upon Gordon's troops, who, after carrying the positions of the enemy, left them to be occupied by the imperial forces, and proceeded to further triumphs. Thus place after place was taken, till all that remained to the rebels was their central stronghold of Nankin, where they were surrounded by an imperial army and compelled to surrender.

In this Chinese campaign Gordon had several providential escapes. Here is one of the most remarkable: 'Behind the stockades he had taken at Patachiacow there was a bridge, 350 yards in length, with 53 arches, which had been partially cut through in order to let his steamer *Hyson* pass into a lake near it. Colonel Gordon was resting one evening on its parapet, smoking a cigar, when first one rifle or musket bullet, and then a second, struck the stone upon which he was sitting. These shots, it turned out, were not from the enemy, but from his own camp, whence they had been fired accidentally. After the firing of the second shot, Colonel Gordon thought it necessary to descend into his boat and go over to the camp in order to inquire into the matter, but he had hardly got half-way across the creek below, when that part of the bridge upon which he had been sitting, suddenly fell into the water; so that the accidental shots which had endangered his life probably saved it.'

Gordon did not hold his command for more than sixteen months. From first to last his conduct was such as to give him an enduring name among the

people of China. In leading his men, he usually carried a little cane, which the Chinese soldiers called Gordon's magic wand of victory. What was even more surprising to the people of China, was his merciful treatment of the vanquished rebels, many of whom were misguided men, glad to leave a life of pillage and massacre. The grateful government of China conferred upon Gordon their highest military titles and decorations; but he left China as poor as when he entered it. He declined the large present of money offered him at the conclusion of the war; and he had spent his salary in promoting the efficiency of his little army. Thus he offered to the races of the far East a rare example of unselfishness and contempt for money. His reward was the feeling that he had done his duty, and had restored to the poor people of China the blessings of peace and tranquillity.

To his mother he wrote home this summary of the rebellion: 'I shall, of course, make myself quite sure that the rebels are quashed before I break up the force, as otherwise I should incur great responsibility; but on these subjects I act for myself and judge for myself. This I have found to be the best way of getting on. I shall not leave things in a mess, I hope; but I think, if I am spared, I shall be home by Christmas. The losses I have sustained in this campaign have been no joke. Out of 100 officers I have had 48 killed and wounded, and out of 3500 men nearly 1000 killed and wounded: but I have the satisfaction of knowing that, as far as mortal can see, six

months will see the end of this rebellion, while if I had continued inactive it might have lingered on for six years. Do not think I am ill-tempered, but I do not care one jot about my promotion, or what people may say. I know I shall leave China as poor as I entered it, but with the knowledge that through my weak instrumentality upwards of eighty to one hundred thousand lives have been spared. I want no further satisfaction than this.'

From 1865 to 1871 Gordon was at Gravesend, superintending the construction of the defences which were being raised at the mouth of the Thames. His life at Gravesend was a beautiful record of philanthropy and sympathy for the poor. 'He lived wholly for others,' says Mr Hake, one of his biographers. 'The troubles of all interested him alike. The poor, the sick, the unfortunate were ever welcome, and never did suppliant knock vainly at his door. He always took a great delight in children, but especially in boys employed on the river or the sea. Many he rescued from the gutter, cleansed them and clothed them, and kept them for weeks in his home. For their benefit he established evening classes, over which he himself presided, reading to and teaching the lads with as much ardour as if he were leading them to victory. He called them his "kings," and for many of them he got berths on board ship. One day a friend asked him why there were so many pins stuck into the map of the world over his mantel-piece; he was told that they marked and

followed the course of the boys on their voyages—that they were moved from point to point as his youngsters advanced, and that he prayed for them as they went day by day.’

Gordon was a constant visitor at the workhouse and the infirmary, and he always had a long list of pensioners whom he supported. ‘Nearly all his garden, a large one, was cultivated by different poor people, to whom he gave permission to plant what they chose, and to take the proceeds. It often happened that presents of fine fruit and flowers would be sent to the colonel, and he would never so much as taste them, but take them or send them to the hospital or workhouse for the sick.’ He had a gold medal, a special gift from the Empress of China, which he greatly valued. It suddenly disappeared; and long afterwards it was, by a curious accident, discovered that Gordon had erased the inscription, and sent it anonymously for the relief of the sufferers from the cotton famine in Lancashire.

In 1874 Gordon entered the service of the Khedive or Viceroy of Egypt. Egypt had established a nominal sovereignty over the whole Nile basin, as far as the great lakes out of which that famous river flows; and it was the southern part of this vast region, called the Provinces of the Equator, which Gordon was invited to govern. The task was one of no ordinary difficulty. In the extensive countries committed to his care, Egypt had only two stations, with a small garrison of wretchedly inefficient men. The natives were hostile to the

Egyptian government, for it had been most hurtful and oppressive to them. The professed object of the Khedive in sending Gordon was to suppress slavery; but it was under the officials of Egypt that the slave-trade was really carried on, and wide regions had been desolated by the cruel slave-hunters.

Gordon addressed himself to the new task with his accustomed energy and self-denial. He began by accepting only one-fifth of the salary of £10,000 offered him by the Khedive. During three years of incessant activity, he greatly reduced the slave-trade in the Provinces of the Equator. He established order and planted garrisons, and dismissed many of the cruel and corrupt officials of Egypt. In putting down oppression of every kind, in securing peace, and in opening up the country to the influences of civilisation, his efforts were unwearied.

In 1877 Gordon accepted even greater responsibilities; he was appointed governor-general of the Soudan, as well as of the Equatorial Provinces. Slave-hunting was the scourge of all this vast territory. It was carried on chiefly by bands of Arabs, who infested the country, attacking the natives whenever they saw an opportunity, slaying the men, and dragging off to the slave-markets the helpless women and children. Bloodshed, murder, and desolation marked the trace of the ruthless slave-hunters, who were here also encouraged in their horrid traffic by the servants of the Egyptian government.

The capital of Gordon's government was Khar-

toum, where he was installed with great ceremony in the beginning of 1877. The speech he made from his vice-regal throne was a brief but striking one, which pleased the people much: 'With the help of God I will hold the balance level.' His labours in the cause of peace and justice were truly marvellous. During the first year of his governorship he rode over about four thousand miles of desert, and his life was repeatedly in danger from wild and hostile tribes.

Before his term of office closed, he had for the time at least broken the power of the slave-hunters, and had completely overthrown the worst and strongest of them, Suleiman, the son of Zebehr, who could bring eleven thousand men into the field. In these savage regions he had been the first to establish a just and noble rule, the great object of which was the welfare of the people. As at Gravesend, so in the Soudan, he cared for the humblest of his fellow-creatures. 'She had her tobacco up to the last,' he writes of a poor old woman, whom he fed for weeks, but who died at last. 'What a change from her misery! I suppose she filled her place in life as well as Queen Elizabeth.'

The just and impartial rule of Gordon, however, was displeasing to many of the corrupt officials of Egypt. He was thwarted and distrusted. His health was broken with hard work, with incessant anxiety and the scorching heats, and accordingly in 1879 he sent in his resignation to the Khedive.

Gordon did not enjoy a long rest after his departure from Egypt. In 1880 he was invited to China on an important and highly honourable mission. The statesmen of China, who knew the disinterested character of Gordon, wanted his advice with regard to a war that was threatening between that country and Russia. Gordon went and gave his voice against war. His counsels were followed, and a conflict was averted.

We are now near the final act of Gordon's pure and noble life. A chequered series of events again made his presence necessary in the Soudan. In 1882 the British had occupied Egypt; but they had disclaimed all responsibility for the government of the vast regions of the Soudan; and the long years of Egyptian cruelty and misrule in that country had at last produced their natural consequences. Under a religious leader called the Mahdi, the fierce tribes rose against their oppressors. The Soudan was speedily in a blaze of rebellion, and the Egyptian garrisons were everywhere surrounded.

The British government felt that they were, in some measure, responsible for the safety of those garrisons. They had ordered the evacuation of the Soudan; but how was this to be accomplished? There seemed to be only one man whose singular genius and acknowledged influence in those countries might be equal to the task of withdrawing so many soldiers, and of establishing order in the general confusion.

Gordon was accordingly sent to the Soudan,

and he entered Khartoum in February 1884. He was welcomed as a deliverer. The poorest of the people were admitted to an audience with the new governor; on the streets they pressed about him, kissing his hands and feet, and calling him father. He collected the books containing the record of the debts due by the over-taxed people, and the whips and other instruments of tyranny from which they had suffered so cruelly, and throwing them into one heap, made a bonfire of them in front of the palace. In the prison he found two hundred wretched creatures, young and old, many of whom had been proved innocent, others of them were untried, and all of them were pining in one common misery. Scores of these he set free before the sun went down. Thus did Gordon on the first day of his arrival at Khartoum.

It proved, however, that this work of justice and mercy was too late to effect any substantial change in the Soudan. The influence of the Mahdi was too great; the tribes were everywhere in fierce rebellion. In two months after Gordon's entry into Khartoum, the town was besieged by the army of the Mahdi, and communication with the outer world was cut off.

Thus surrounded by savage enemies, Gordon had a terrible task before him. He had only two or three Europeans to assist him; many of his soldiers were not trustworthy; help was far distant. Yet for many long and weary months he kept his enemies at bay, and maintained peace and order in Khartoum. The hot summer passed away;

autumn was succeeded by winter. An army of British soldiers under command of Lord Wolseley, who had been a comrade of Gordon's in the trenches before Sebastopol, was advancing up the Nile to his relief, but its progress was delayed by the cataracts and the sandy deserts. It had already reached Shendy, a point on the river only three days' sail from Khartoum; and vessels with English soldiers on board approached the city so long defended by the skill and courage of Gordon. But it was too late! On the morning of the 26th of January 1885, just two days before the arrival of the English soldiers at Khartoum, a traitor had opened the gates of the city to the wild host of the Mahdi. Gordon was slain, his faithful soldiers were massacred, and women and children sold into slavery.

During the long siege, Gordon had left no resource untried that skill and endurance and kindness could suggest to enable his garrison to hold out against their foes. He felt that he could not desert the poor people whom he had pledged himself to protect, and in the fulfilment of this duty he lost his life. But no man can be said to fail whose life, like that of Gordon, is an unbroken record of well-doing in the cause of justice and mercy; and the circumstances under which he fell will only serve the better to stamp his name on the memory of mankind.

The closing months of his career were watched with intense anxiety by every nation of the civilised world. They saw a man who had no fear of death, who was not moved by the paltry ambitions or the

mean motives of the world, but was ready to give up everything for his fellow-creatures, one who regarded all men as his brethren, and who gave them his help, without distinction of creed, colour, or nationality.

A journalist who met General Gordon just before he left upon his last fatal mission to the Soudan, thus describes his personal appearance: 'Slightly built, somewhat below the average height, General Gordon's most remarkable characteristic at first sight is a child-like simplicity of speech and manners. Notwithstanding his fifty years, his face is almost boyish in its youthfulness, his step is as light and his movements as lithe as the leopard. Although he is still excitable and vehement, those who know him best say that he has under much firmer control those volcanic fires which blazed out with fiercest fury in his younger days; as, for instance, when he hunted Li Hung Chang revolver in hand, from house to house, day after day in order to slay the man who had dishonoured and massacred the prisoners whom he had pledged his word to save. But there is that in his face at times even now, that contrasts strangely with the sweetness of his smile, or the radiance which lights up his face when discoursing on his favourite author and the choice texts of the "Imitation of Christ," which, for the present, seems to have superseded his old favourite, "Watson on Contentment." In Gordon the tenderness of a woman, the gentleness of a child, the ready sympathy with all the sorrows and sufferings of others, are combined with

an iron will and a certain "hardness" which is indispensable to a ruler of men. In the Soudan he was to slave-dealers, pashas, and other evildoers an incarnate terror. On his fleet camel, accompanied only by a single guide, he sped from province to province, like an angel of wrath descending like a thunderbolt upon all who withstood his will. Yet even while the rage of the Berserker flashed in his eye, infinite compassion for the weak, the helpless, and the oppressed trembled in his voice.'

His faith in God was so complete that he was unmoved by the fear of man. To the great men of the world he fearlessly spoke the truth, to the poor he was kind and merciful, to all he was just and sympathetic. Wealth and power he valued only as a means of benefiting his fellow-men; his great pleasure was in doing good. The memory of such a man is a possession for all time; and to the people that know how to prize it aright, it is more precious than all treasures of silver and gold.



Muskhatti

Sunbeam

13.8-27

1909-38



The *Sunbeam* beating up the Red Sea.

LADY BRASSEY'S VOYAGES IN THE 'SUNBEAM.'

IN 1878 Lady (then Mrs) Brassey issued a lively and interesting book, purporting to be an account of her voyage round the world, in the yacht named the *Sunbeam*. She was accompanied by her husband, Mr (now Sir) Thomas Brassey, also her children and a few private friends. The yacht was a handsomely fitted up and commodious vessel, with three masts, and was provided with steam-power. It could match any sailing-vessel in point of speed; and when occasion required, the sails could be lowered, the funnel raised, and steam brought into play. This might be called the perfection of sea-travelling. Living, as it were, in

your own house, and able to rest or go forward in every clime according to fancy, the enjoyment is complete.

Where the sun loves to pause with so fond a delay,
That the night only draws a thin veil o'er the day ;
Where simply to feel that we breathe, that we live,
Is worth the best joy that life elsewhere can give.

Lady Brassey, a daughter of Mr John Allnutt, London, was married in 1860. She had always had a strong predilection for travel, and was in the habit of making notes of the chief incidents of the journeys. The narrative of her voyage in the *Sunbeam* was at first written without any idea of publication, the notes being sent home to amuse her father, from the various ports at which the vessel called. These notes were afterwards gathered together and published in a volume, which became very popular.

Without laying claim to a high degree of literary finish, Lady Brassey writes pleasingly ; and she may be complimented on her capacity for bearing fatigue, as well as upon the skill with which she describes the multiplicity of scenes and circumstances coming under her observation. Her husband, who was his own navigator, was assisted by a sailing-master, a boatswain, and engineer, besides a crew of at least twenty able-bodied seamen ; the full complement being made up by a steward and stewardess, cooks, nurse, lady's-maid, and other domestics.

One can fancy the pleasurable excitement in preparing for a year's voyage of this kind,

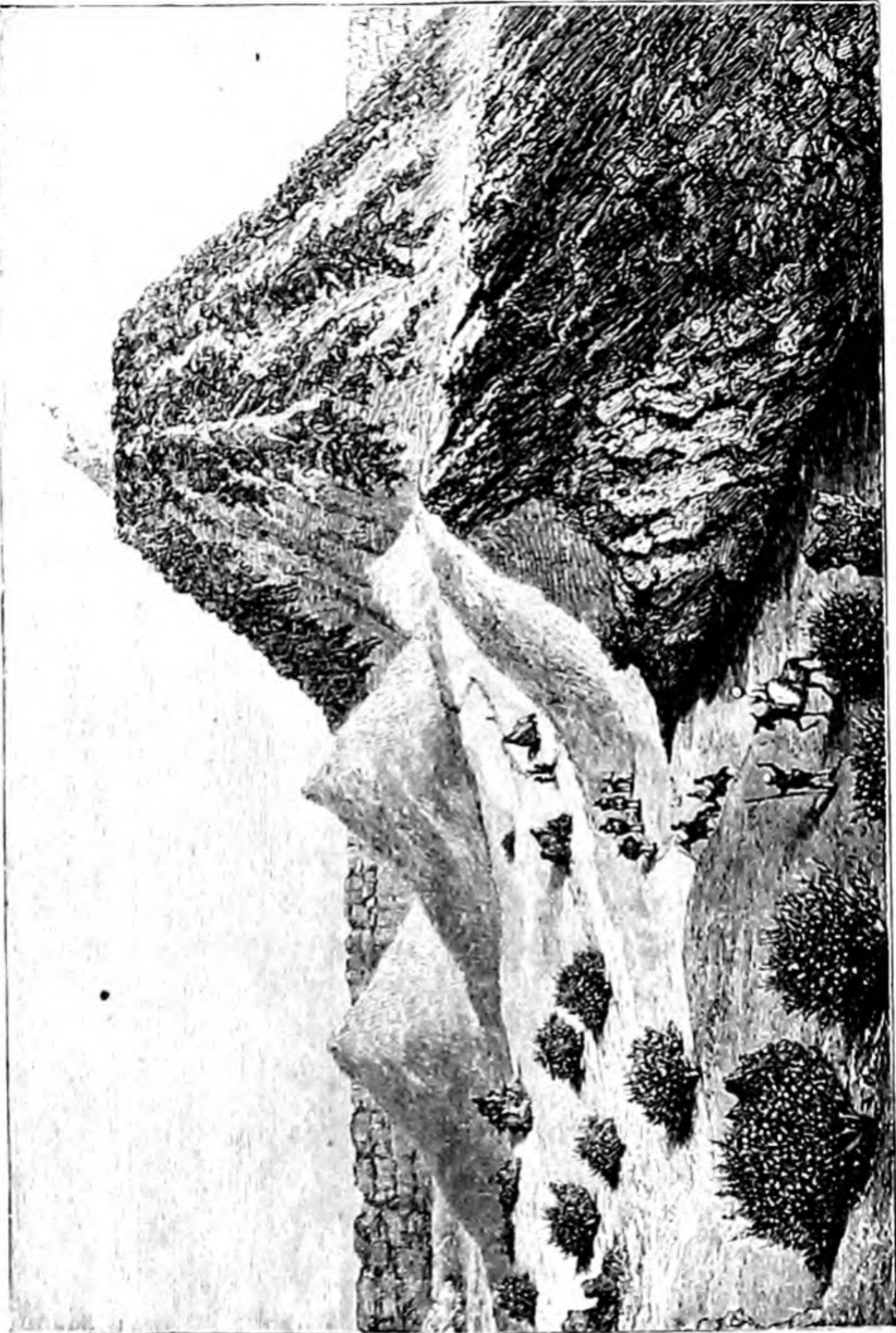
the arrangements to be made, the articles to be taken; the hopes probably predominating over the fears; the farewells on going on board. It is not the good fortune of many to have so splendid a chance of making a tour of the globe, carrying from clime to clime not a few of the comforts of home — an elegant saloon for daily resort, a library of seven hundred volumes, nicely fitted-up cabins, baths, a first-rate cuisine and larder, and everything else to make life pass away agreeably; letters of introduction, abundant means, liberty to sail where and when you like. What more could any one desire? Such is yacht-life. It was, as already indicated, brought to perfection in the *Sunbeam*.

This vessel, then, sailed from the Thames on the 1st July 1876, and steering westward by the Isle of Wight, suffered some rough weather in getting into the Atlantic. On the 13th there was a cry of a 'sail on the port-beam;' but on investigation it proved to be an abandoned vessel tossed about on the ocean, with masts gone, and the sea washing over the half-broken-up deck. This unfortunate derelict was visited; it had been laden with wine, of which several casks were carried away, and then it was left to its fate; though, had time permitted to take the hulk into port, a considerable salvage might have been realised. The land first reached was Madeira. At Funchal, the vessel dropped anchor; and with jaunting about to see the island, there was a stay of several days. Many friends came on board before departure, and

'all admired the yacht very much, particularly the various cosy corners in the deck-house.'

On reaching the Canary Islands, there was an expedition on horseback to the Peak of Teneriffe. Tremendous as was the ascent of a mountain which rises 11,466 feet above the level of the sea, Lady Brassey did not shrink from the undertaking. She, however, did not attempt to climb the cone of 530 feet, composed as it is of hot ashes, into which the feet sink at every step, while sulphurous vapours pour from the various fissures. The view from the summit was magnificent; and drawings and photographs were taken of the picturesque scenery around and below.

Rio de Janeiro, on the coast of South America, was next reached on the 18th August. A graphic account is given of excursions in Brazil. The eye everywhere was struck with the brilliant colours of the humming-birds, flowers, and butterflies. Palm, orange, lemon, and citron trees were among the common objects of vegetation. A variation in the general amusement consisted of a voyage up the river Plate and a journey on the Pampas. Splendid country, and well farmed, but under the great infliction of locusts. Of these terrible creatures Lady Brassey heard a good deal. She had longed to see them, and her wish was gratified. 'In the course of our ride,' she says, 'we saw in the distant sky what looked very much like a heavy purple thunder-cloud, but which the experienced pronounced to be a swarm of locusts. It seemed impossible; but as we proceeded they met us,



ASCENT OF THE PEAK OF TENERIFFE.

first singly, and then in gradually increasing numbers, until each step became positively painful, owing to the smart blows we received from them on our heads, faces, and hands. . . . As the locusts passed between us and the sun they completely obscured the light; a little later, with the sun's rays shining directly on their wings, they looked like a golden cloud, such as one sometimes sees in the transformation scene in a pantomime.'

The *Sunbeam* resumed its course southwards on September 28th. One morning Lady Brassey, while lying down to rest after breakfast, was summoned to come on deck to see a ship which had signalled being on fire. A boat being despatched to discover the condition of affairs, the vessel was found to be the *Monkshaven*, sixty days out from Swansea, bound for Valparaiso with a cargo of smelting-coal, which had taken fire by the spontaneous ignition of gases. As it was evident that the unfortunate ship could not be saved, prompt assistance was given in bringing the crew on board the *Sunbeam*. 'The poor fellows,' says Lady Brassey, 'were almost wild with joy at getting alongside another ship, after all the hardships they had gone through, and in their excitement they threw overboard many things which they might as well have kept, as they had taken the trouble to bring them. Our boat made three trips altogether; and by half-past six we had them all safe on board, with most of their effects, and the ship's chronometers, charts, and papers. . . . While we were at dinner the ship was blazing like

a tar-barrel.' The last time the *Monkshaven* was seen, she was burned down nearly to the water's edge. From the information given respecting the ill-fated ship, it was learned that a large American steamer had passed quite close to her, and disregarding signals of distress, had steamed away southward, leaving all on board to their fate. The kind attention shown by Sir Thomas Brassey comes strongly out in contrast with such heartless conduct. The unexpected addition of the crew of the *Monkshaven* to those on board the *Sunbeam* proved a trial on the commissariat, but the difficulty was overcome. The inconvenience was fortunately for only a few days. The *Ilimani*, one of the Pacific Company's mail-steamers, came in sight on the route for England, and to this vessel the crew of the *Monkshaven* were consigned. Besides affording this relief, 'the captain of the *Ilimani* kindly gave us half a bullock, newly killed, a dozen live ducks and chickens, and the latest newspapers.'

On the 6th October, as the *Sunbeam* was off the coast of Patagonia, the rugged mountains of Tierra del Fuego rose against the sky; after which the yacht shaped its course for the Strait of Magellan. To get through the tortuous narrows is reckoned one of the cleverer feats in navigation. There are many sunken rocks to be avoided, and the natives scattered about the coast are not to be relied on.

The narrow channels were got through on the 12th October; and as the sun pierced the

clouds, the broad Pacific lay before the voyagers. After touching at Valparaiso, their course lay among the groups of islands which, dotting the Pacific, lie basking in the profuse beauty of the tropics. Valparaiso itself, the most important trading town of Chili, left some agreeable impressions. Several English gentlemen were solicitous that the party should stay for a few days; and there were excursions in the neighbourhood.

An emporium of Panama hats was visited. These hats, which are a curiosity, and worn by almost everybody on the coast, are made of 'a special kind of grass, split very fine,' and are sold at extraordinary prices; fifty or sixty guineas being not an unusual price for a single hat, though of course many are sold at a much cheaper rate. Their recommendation is that they are light, pliable, and so enduring that they will almost last for ever. Very wonderful hats, Lady Brassey thought, but playfully adds, that where 'so many hats are lost overboard, they would prove rather an unprofitable investment.' Some curious details are given respecting the abundance of eggs, which are offered in profusion at meals. Eggs on all occasions are the order of the day, and poultry in superlative abundance. Valparaiso, in short, is the paradise of eggs. There were good shops, but everything was 'frightfully dear.'

The route adopted from Valparaiso was westward to the Society Islands, lying in nearly the twentieth degree of south latitude. They may be said to be at the very centre of the Pacific, and

out of the way of general navigation. It was a charming sail, but rather slow work; and looking to the great stretch of ocean to be traversed, there were qualms of feeling as to how provisions and water would last. Gliding on at the rate of five miles an hour under sail, but sometimes accelerated by a breeze, the *Sunbeam* went onward night and day with nothing to be seen but the ocean and sky. Much time was spent in reading, and there was some amusement in noticing the paroquets, monkeys, and other pet animals that had been domesticated on board. On Sundays, as was customary throughout, all hands were summoned for divine service, just as at home in England. The length of the service depended on the weather. When circumstances permitted, Sir Thomas Brassey read a sermon in addition to the usual prayers.

The Society Islands were reached on the 26th November. These islands consist of coral reefs, and are full of natural beauty. 'Submarine coral forests of every colour, studded with sea-flowers, anemones, and echinidæ, of a brilliancy only to be seen in dreamland; shoals of the brightest and swiftest fish darting and flashing in and out; shells, every one of which was fit to hold the place of honour in a conchologist's collection, moving slowly along with their living inmates: this is what we saw when we looked down from the side of the boat into the depths below.' Landing on one of the islands, the party were hospitably received by the natives. Piles of cocoa-nuts, fish, and fowls were laid down as presents at their feet. Lady Brassey says: 'The

women were gentle and kind, and were delighted with some beads, looking-glasses, and knives I gave them; in return for which they brought us quantities of beautiful shells.' At the island of Tahiti there was a similar exchange of courtesies. Papiette is described as quite a town, with a market affording an immense choice of articles for sale.

The pleasures of a tropical clime are unfortunately apt to be marred by certain drawbacks. During the rainy season, water falls in solid masses which no temporary shelter can withstand; but this is nothing in comparison with the invasion of insects. A small party which set out in an American wagon for a drive of two days round Tahiti, passed the night at an inn where the insect pest was experienced in an unmistakable way. The rooms were swarming with cockroaches 'about three inches long,' which climbed the walls and were seen in every crevice. 'Then there were the mosquitoes, which hummed and buzzed about us, and with which, alas! we were doomed to have a closer acquaintance. Our bed was fitted with the very thickest calico mosquito curtains, impervious to the air, but not to the venomous little insects, which found their way through every tiny opening in spite of all our efforts to exclude them. . . . Amidst suffocating heat, in the moonlight, were seen columns of nasty brown cockroaches ascending the bed-posts, crawling along the top of the curtains, dropping with a thud on the bed, and then descending over the side

to the ground.' Being unable to stand it any longer, Lady Brassey rose, emptied her slippers of the cockroaches, seized on her garments, and fled to the garden; whence, however, she was driven back by torrents of rain. Such is a picture of certain inconveniences in these tropical islands. Prodigious beauty of vegetation, flowers magnificent, all seemingly a kind of paradise—but for the plague of insects.

Making a run northwards, the *Sunbeam* reached Hawaii, one of the Sandwich Islands, on the 22d December. Here was the same profusion and beauty of flowers. The women and girls are described as being gaily decorated with wreaths and garlands, and wearing a dress of a very simple yet not inelegant fashion, consisting of 'a coloured long-sleeved loose gown reaching to the feet'—no tying at the waist, all flowing and free, with no restraint in walking or sitting down. Our space does not permit us to follow the movements of the party in their excursions through interesting scenery. Hawaii, like all the other islands in the group, is of volcanic origin. Kilauea is reckoned to be the largest volcano in the world, its crater being nine miles in circumference. This extraordinary volcano, situated at the top of a mountain six thousand feet above the level of the sea, was visited by Lady Brassey, although the journey to it is fatiguing, and its approach not unaccompanied with some peril. There was a comfortable inn near the brink of the crater, at which travellers were accommodated



KILAUEA BY NIGHT.

and furnished with guides to conduct them in safety to the various points of interest.

The route homewards of the *Sunbeam* from Hawaii was by way of Japan, the China Sea, the Straits of Malacca, Ceylon, the Bay of Bengal, the Red Sea, the Suez Canal, and the Mediterranean. The climate of the Mediterranean, which is beneficial to many invalids from northern countries, suited badly, as we are told, with the delicate constitution of the pet animals brought from the South Pacific and other warm regions. Although tended with great care, several pined and died, from the effects of acute bronchitis or other ailments, after passing Malta. All these victims to a change of climate 'were placed together in a neat little box, and committed to the deep at sunset, a few tears being shed over the departed pets, especially by the children.'

Lady Brassey with her family and friends reached home on the morning of the 27th May 1877. In the whole voyage round the world, no hitch or any misadventure had occurred.

In 1874 and 1878, Lady Brassey again made several cruises in the Mediterranean. In her published accounts she gives two distinct narratives of journeyings over nearly the same ground in a lively off-hand manner. We are surprised at her singular facility in presenting so faithful a record of what she saw and experienced. There is something more than this to excite surprise. It is her industry and power of endurance. She encounters storms with the fortitude of an 'old

salt,' fills up every spare moment in writing or in finding subjects for illustrations, and on all occasions on landing at strange ports, sets off with members of her family on horseback, to see places of interest—if need be, bivouacking in tents on the journey.

On returning from a cruise to the Arctic Circle, Lady Brassey, after remaining only a few days in England, proceeded on her voyage to the East. The *Sunbeam* started from Hastings, 4th September 1874. There was a fine run to the Strait; they signalled their number in passing Cape St Vincent, and had a delightful sail along the south coast of Portugal. An opportunity was also taken of visiting Tangier and Ceuta, on the African side of the Mediterranean. On the 18th October, the *Sunbeam* reached Constantinople. The Turks had not yet experienced the horrors of the Russian invasion, and everything was going on in the old heedless way; so that Lady Brassey was favoured by seeing the Sultan's court and palaces in all their glory. The bazaars were in full swing. It was amusing to observe the Turkish ladies with their attendants 'admiring and bargaining for second-hand dresses, all very smart in trimming, and of the most gorgeous colours, though somewhat soiled. I have often,' remarks Lady Brassey, 'wondered what became of old ball and dinner dresses; but now that I have seen the enormous quarter of the bazaar devoted to the sale of these articles of apparel, I cease to do so.' We learn that on all

hands young Turkish ladies were beginning to adopt European usages, and to rebel against the old-fashioned Turkish restrictions.

Lady Brassey had excellent opportunities of gathering facts concerning the domestic affairs of the Sultan which would not have been afforded to any male traveller. The children of the Sultan are indulged and pampered in a way that seems perfectly ludicrous. A droll incident is related. The youngest son of the Sultan, a boy nine years of age, would be an Admiral, with a gorgeous uniform and sword corresponding. In this whim he was indulged; but the child also insisted on having a war-ship on which he could hoist his flag; and that was not so easily managed, as there was a bridge building which would prevent the ship from floating up to the palace. The contractors were ordered to open the bridge to let the ship pass. To this they very naturally demurred, as the work of two or three months would have to be undone. But the orders of the Sultan were imperative. Afraid of losing their heads, the contractors obeyed. The bridge was taken down; and a large ironclad being brought out from the docks, was moored in view of the nursery window, to gratify the child with the sight of a flag being hoisted—'thus causing enormous inconvenience to the whole town for months, to say nothing of the waste of money, of which the Sultan paid very little, and for the loss of which, I imagine, he cared still less.' From this and similar follies, we learn how the

enormous loans made to the Porte were squandered without any consideration as to consequences.

Early in November, the *Sunbeam* weighed anchor, and proceeded down the Dardanelles to the Greek islands, amidst which there was some agreeable sailing—the scenery of Zante, Cephalonia, and Corfu being specially charming. We learn that since the gratuitous cession of these islands by England to Greece, things have not turned out so well as the natives expected. The roads are not kept in repair, and the taxation is excessive. ‘Every respectable person to whom we have spoken bitterly laments the departure of the English from their occupation of the islands, and gives the most dreadful account of the Greek government, which in these islands is hardly a government at all, but simply a system of bribery and corruption.’ At Corfu, the authoress adds, ‘the poor islanders lament the loss of British rule, under which at one time they used to complain that they were only slaves. They find the difference now, when the Greek government neglects them utterly, except to impose enormous taxes; and the patriotic idea of being governed by a Greek king does not seem to console them much.’ It is to be hoped that matters have since mended with these Greek islanders. After visiting Greece, the yacht was turned towards Naples, and the voyage terminated at Marseilles. The party thence travelled homeward through France, and arrived in England on the 2d January 1875.

The succeeding excursion was designed to embrace a wider range in the Mediterranean, including a visit to Cyprus. On the agreeable principle enunciated by Moore, that 'when pleasure begins to grow dull in the east, we may order our wings and be off for the west,' the intention had been to start in the summer of 1878; but Lady Brassey was unwell, and the wings were not put in motion till the 20th September.

As usual, the *Sunbeam* was equipped with all that was needful for the trip. While on the voyage, observations were daily taken, and a reckoning kept of the miles travelled; so that those on board could at any time know where they were. The yacht was, of course, furnished with Marryat's signals, by which questions could be asked or answered with vessels passing. These signals, which consist of small slips of bunting, that can be instantly run up to the mast-head, are a kind of maritime wonder. As arranged by the late Captain Marryat, and now universally adopted, vessels within sight of each other can keep up a conversation to the extent of many hundreds of questions and answers—the whole defined in a dictionary, which is ever ready at hand. When properly worked, these signals add immensely to the comforts of life at sea, independently of their value for nautical purposes. The reputation of the *Sunbeam* led to no end of courtesies.

There was rather rough weather at starting, but by the 24th September the yacht had run 224 miles, with scarcely any sail set. There was a short stay

at Vigo, on the coast of Portugal, to give exercise to the children, and to allow of Lady Brassey picking up in health. All were benefited by the sunshine and walks among the trees. The next landing was at Cadiz, in Spain, whence there was a run by train to Seville, at which the grand object of attraction is the cathedral, a building of matchless beauty, over which Lady Brassey waxes quite enthusiastic. 'Every time one comes back to this beautiful building, whether the interval has been long or short, it affords increased pleasure and delight. A special interest and grandeur are attached to the place, I think, from the fact that the name of the designer is entirely unknown. He worked for the love of God and of his art, not for the sake of personal fame; and the creation of his brain is now admired by thousands as each year rolls on.' Such is a just tribute to this marvellous Gothic edifice, which, with its marble fountain and environing orange-trees, contributes so materially to substantiate the saying, that 'he who has not seen Seville has seen nothing.' The party returned to the hotel exhausted with sight-seeing, their way being through a suburb 'where all the inhabitants were enjoying the evening air, sitting on their door-steps, singing and laughing, their hair always elaborately dressed with flowers, however squalid their attire might be.'

On the 8th October, the yacht dropped anchor outside the New Mole at Gibraltar. Visits to various places ensued. 'We went to lunch with Lord and Lady Napier at the convent, and heard a good deal of interesting conversation about India

and Afghanistan. Lady Napier had an afternoon reception. It was a pretty sight in the semi-tropical garden, to see the people moving about, or sitting on the bright-coloured chairs and sofas under the trees, or enjoying lawn-tennis in the cool of the shady court. The children of the party, including our own, were entertained at the other end of the garden.' In the evening, Lord and Lady Napier, with suite, made a return visit



Landing-place at Capri.

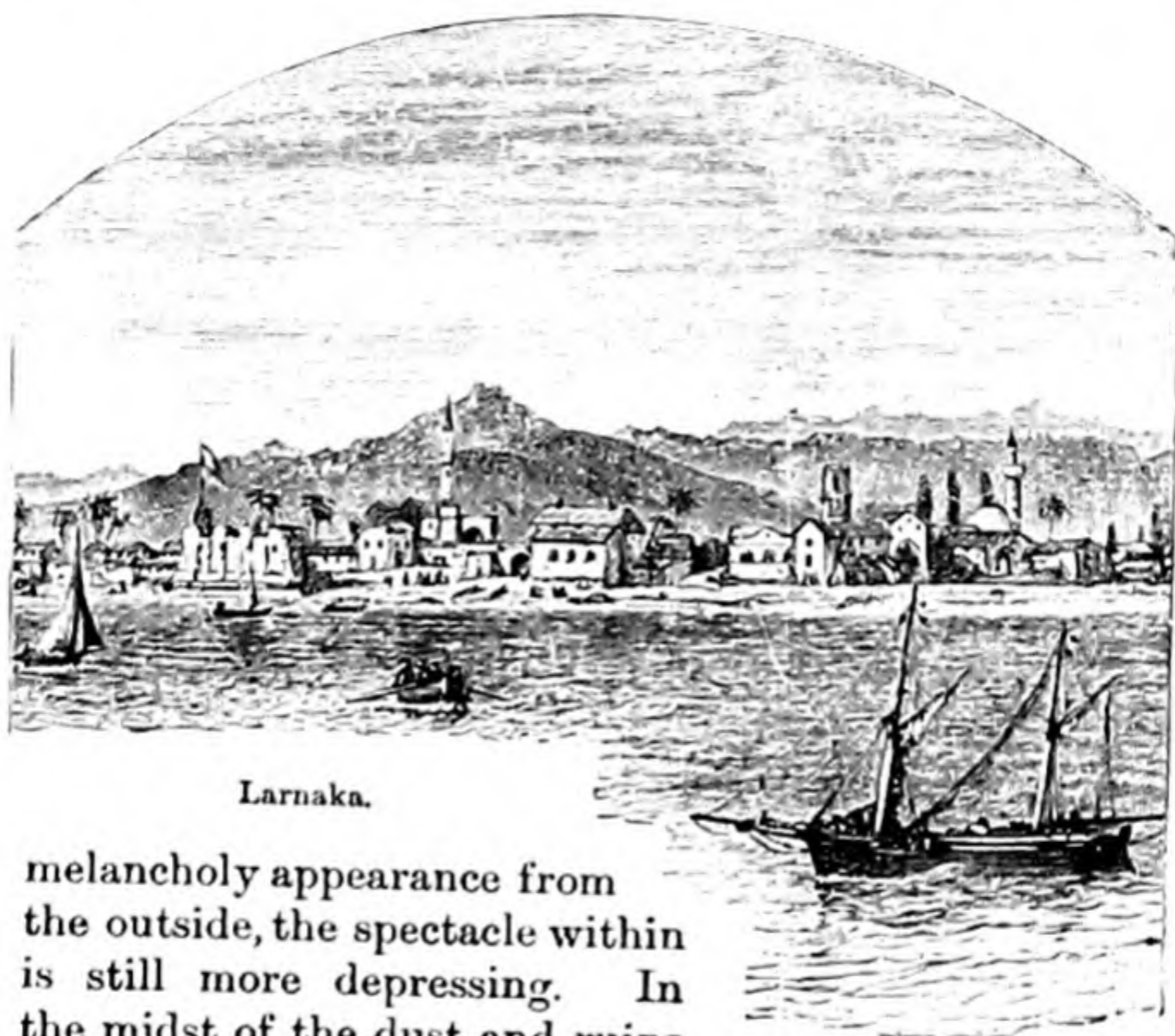
to the *Sunbeam* and had tea. Moving on in a day or two, the yacht proceeded along the African coast. One of the stopping-places was Oran, a French town, where the hotels and cafés are said to be 'excellent and very cheap.' Good view here of the Atlas Mountains. From the African coast, the *Sunbeam* shot across to the island

of Sardinia, where an opportunity was taken of viewing the old Greek and Roman remains near Cagliari, the site of the ancient Caralis. Then proceeding to the coast of Italy, the party enjoyed a visit to Paestum and Vesuvius. At Pompeii they were specially favoured by being allowed to see some new excavations.

Rather a rough trip was undertaken in a small steamer to the island of Capri. Not far from the chief village or town of the same name are the ruins of the Pharos, and of the Villa Jovis built by the Emperor Tiberius. A wide and splendid prospect was enjoyed from a height here, and Lady Brassey had her bed drawn close to the window, in order to watch Vesuvius until she fell asleep.

The course was next made for Cyprus, the western point of which island, near the ruins of the ancient Paphos, was reached on the 7th November. The island had to all appearance been ruined in every possible way by the disgraceful mismanagement of the Turks. Its towns were in ruins, its mountains stripped of trees, its marshes left undrained, and its harbours choked up. Riding across the island, the party reached the British encampment at Nikosia, where they were hospitably entertained. They had also an opportunity of seeing something of Larnaka, which Lady Brassey says has been improved in appearance since the arrival of the English; 'but it is still a miserable-looking place, with half-a-dozen wretched little jetties and broken-down quays, in course of repair with stones from ancient Salamis, on the sea-shore.'

At Famagousta, where there was a proposition of improving the harbour, a sad scene of desolation is presented. 'If Famagousta presents a



Larnaka.

melancholy appearance from the outside, the spectacle within is still more depressing. In the midst of the dust and ruins of the houses and palaces, once containing a population of three hundred thousand souls, are now to be found a few miserable mud-huts, the habitations of some three hundred people. Three churches remain standing where once there were two hundred; and in the streets, only a few cadaverous-looking creatures may be seen gliding about like ghosts.' At the Government House, all the servants were

down with fever. The tendency to fever in Cyprus is something quite incomprehensible. Malaria, owing to want of drainage and defective cultivation, may have much to do with it. The strange thing is that, as Lady Brassey was told, 'even at a height of three thousand feet above the sea-level the fever asserts its sway.' How this insalubrity is to be remedied, is somewhat puzzling. We doubt not English physicians and engineers will get at the cause of the evil. Meanwhile, from the poverty and scarcity of population, native produce is cheap. In doing some marketing, a large quantity of tomatoes, onions, and other vegetables sufficient for all on board the yacht cost only two shillings, and a 'nice fat sheep' was bought for thirteen shillings.

Farewell was bid to Cyprus, November 20. The weather was fine, the sea smooth. The evening was so warm that the party played cards on deck by moonlight, a circumstance which contrasts with the cold foggy condition of the weather in England at this season. Onward the *Sunbeam* plied its way to Rhodes, celebrated for having once been the residence of the Order of the Knights of St John, and whose vacated palatial dwellings are still in tolerably good condition. The party lodged for a week comfortably at a neat little inn—'a quaintly arranged place with a mosaic pavement, kitchen in the yard, bedroom in the veranda, everything where it was least expected to be; and charming little peeps of scenery from every quarter.'

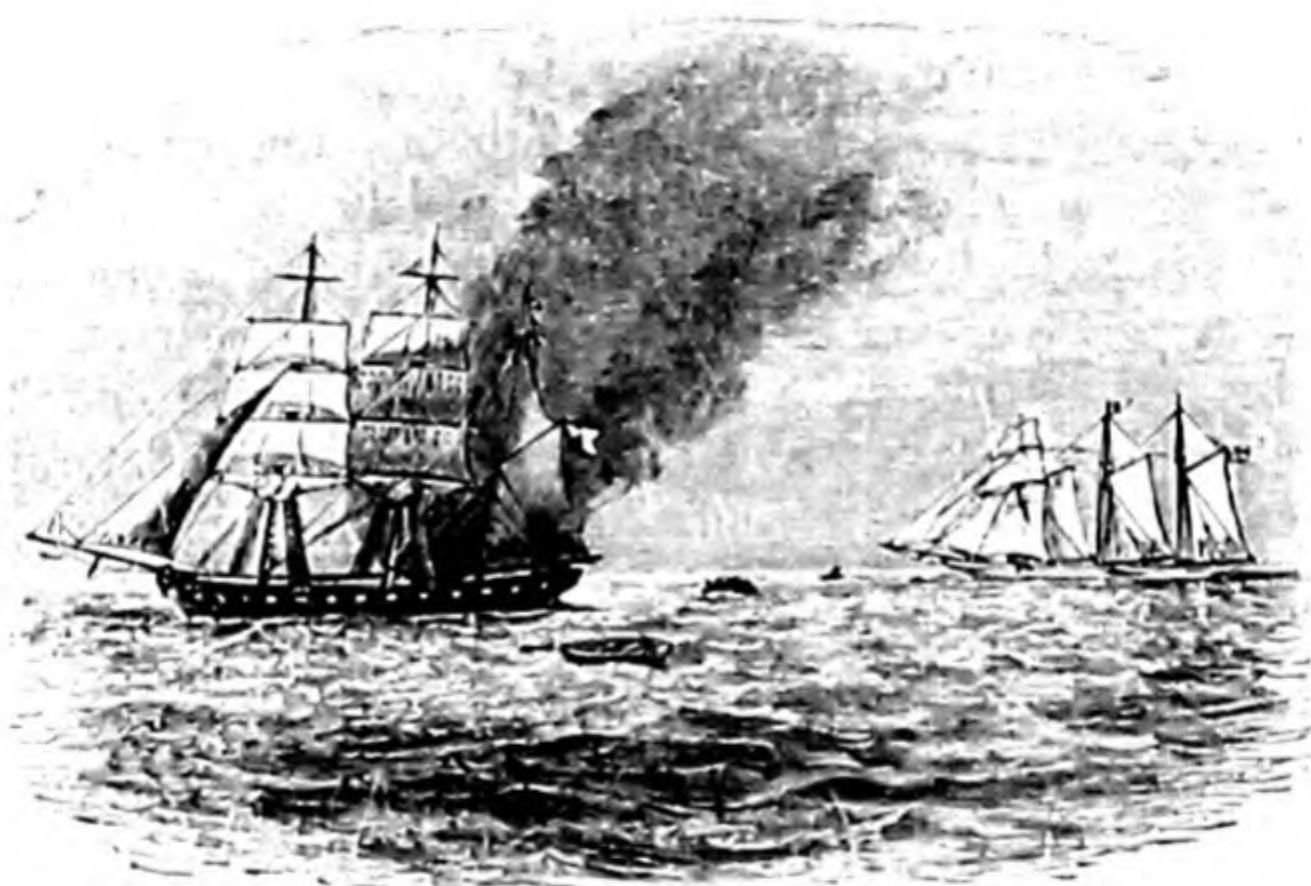
The yacht arrived off Seraglio Point at Con-

stantinople on the 1st December. What a change since four years ago! The Sultan deposed, and another in his stead. The harem dispersed. Evidences of misery on all sides. 'Constantinople,' says our authoress, 'has lost much of its glitter and glory; but the mud, squalor, and misery remain, and are increased tenfold.' The bazaars in a half-deserted condition. 'The slaves from the harems are constantly bringing valuable jewels and plate to be disposed of for a little money, not having themselves the least idea of their value. In this way we picked up some beautifully inlaid turquoise belts, carved ivory cups, old silver, and other things, by the merest chance. A friend of mine saw five splendid hoop gem rings, each worth nearly a hundred pounds, sold by a slave to a Jew for one pound each. . . No more gorgeous silken-lined carriages drawn by white horses, and guarded and attended by eunuchs, slaves, and soldiers; no more less pretentious equipages, from which step ladies attired in silk and satin, and sparkling with jewels, their bright eyes imperfectly concealed by their yashmaks and feridgees. All these are past and gone, and all that can now be seen are a few poorly dressed ladies making their small household purchases.'

In returning from Constantinople, the yacht experienced some heavy gales, but fortunately without any disaster. The party left the *Sunbeam*, not without regret, at Malta; and again returning home through France, were once more in England on the 8th January 1879. The reception at Battle

Abbey was as usual marked by a merry peal of bells, every one, dogs big and little included, testifying their happiness on the safe return of the family.

'Tis sweet to hear the watch-dog's honest bark
Bay deep-mouthed welcome as we draw near home ;
'Tis sweet to know there is an eye will mark
Our coming, and look brighter when we come.



The *Monkshaven* on fire.



NORDENSKJÖLD'S DISCOVERY OF THE NORTH-EAST PASSAGE.

NUMEROUS attempts have from time to time been made to ascertain whether there is dry land, open sea, or impenetrable ice at the North Pole. Many such attempts were made even before the time of Parry's remarkable sledge-journey, and many others have been made since; but still the ice is found to block the way long before the Pole can be approached. Captain Sir George Nares, in his ship the *Alert*, reached a high northern latitude, while his sledgers penetrated farther

north than any other human beings up to that time were known to have reached. Nevertheless there were three or four hundred miles of unknown region between the sledges and the veritable Pole. A series of expeditions was undertaken by various European countries and the United States in 1882, for the purpose of wintering in a high latitude, and making scientific observations; while the famous American expedition under Lieutenant Greely, reached the farthest northerly point ever attained by civilised man.

Far more numerous have been the expeditions in search of what is termed a North-West Passage from the Atlantic to the Pacific round the north coast of the American continent. Almost to this day the search has been kept up, and with considerable geographical success. The gallant, ill-fated Sir John Franklin virtually realised the result aimed at, although he died before the fact could be recognised in its fullness; while M'Clure in later years discovered another passage between the islands that fringe the northern coast of the New World. But though geographically valuable, these discoveries possess little commercial importance, seeing that the way is more or less blocked with ice. A steamship route to the north-west of Canada, by way of Hudson Bay, was under the consideration of the Canadian government in 1885.

The stage is now clear for noticing in a rapid way the third class of Arctic expeditions—namely, those connected with the *North-East Passage*. Here

it is that the learned and energetic Swede, Professor Nordenskjöld, achieved a result which will always be associated with his name and fame, and in which his stout steamer the *Vega* will be recorded as the first vessel that ever circumnavigated the Old World of Europe and Asia.

The vast region of Russia and Siberia had for many generations been believed to be bordered on the north by an ocean bound up in thick ice during the winter and partially thawed during summer; but whether the land was continuous, or fringed and broken with islands, was an item of knowledge that had to be groped for. Among many rivers, three of grand dimensions flow through Siberia nearly from south to north, all having their rise in the little-known regions of Central Asia, and all emptying their waters into the still less known Arctic Ocean. The Obi, the most westerly of these three rivers, flows through Tobolsk, the Yenisei through Yeniseisk, and the Lena through Yakutsk.

Siberia, although inclement and almost unbearable in winter, has bright skies, warm sunshine, and fertility during the short summer. Corn, hemp, and other crops ripen; forests grow good timber; flocks and herds furnish skins, hides, and tallow; the trees facilitate the making of tar, resin, and turpentine; fur-bearing animals furnish peltry which is much valued in Europe; while the mineral wealth comprises gold, silver, platinum, and other choice metals. When the natives began to place small vessels on the rivers, and convey

cargoes to the sea, where sale and barter took place with other traders hailing from other rivers, the groundwork of what is now known as the *North-East Passage* was really formed. In this way the traders, cautiously creeping on a little east and anon a little west, discovered successive portions of the Arctic coast of the Old World.

Nordenskjöld, a naturalist and scientific man, took part in many minor expeditions to Greenland and Spitzbergen before he turned his attention to the North-East Passage. The experience which he thus acquired led him to the conclusion that, however interesting for the researches of naturalists and scientists, these expeditions to Greenland were not likely to develop a commercial or mercantile route. He therefore began to turn his attention, about the year 1875, to an eastern or north-eastern route.

The Professor knew what the Russians and Siberians had done, in tracing several of the great Asiatic rivers to their mouths in the Arctic Ocean. He furthermore formed a happy conjecture that these rivers carry a vast body of warmish water to the sea during the summer months, and that this water is diverged into an easterly current by the diurnal rotation of the earth; thus offering facilities to vessels sailing or steaming parallel to the coast. This conjecture proved to be correct, and had much to do with his subsequent success. He formed a scheme for steaming along the whole distance from Norway to Behring Strait, passing on his

way the wide-spreading coasts of Sweden, Finland, Russia, and Siberia, and emerging at the Strait into the Pacific Ocean. In this way he hoped to accomplish the *North-East Passage* from the Old World to the New.

Being simply a scientific man by profession, he was unable to bear the cost of such an enterprise; but he had already won public confidence, and the king subscribed to a fund, while the Swedish parliament voted a small supply for his assistance. He had also some slight help from a Russian gentleman; but the main prop and stay of his proposed expedition was M. Oscar Dickson, a large-hearted Swedish merchant, who came forward with the munificent sum of twelve thousand pounds. Thus guaranteed, Nordenskjöld proceeded in 1877 to organise his plan.

The first thing to do was to provide a vessel; and a fortunate choice was made. The *Vega* was a whaler of about five hundred tons, painted black; it carried a small steam-engine capable of developing, without the aid of sails, a speed of five miles an hour; and bunkers capacious enough to hold coals for the whole distance of four thousand miles between Norway and Behring Strait. The coals, however, were not all in the ship at one time, subsidiary vessels going part of the way as tenders or store-ships. Attention was next paid to the provisions, of which enough was taken, wholesome and varied in quality, to last nearly two years in case of need. Ship's stores of every sort were ample, and

the *Vega* was eventually made ready for her adventurous voyage.

It was in the summer of 1878 that the expedition started. Many naturalists and cultivators of the physical sciences eagerly took part in it. Captain Palander was intrusted with the command of the ship and its navigation, Professor Norden-skjöld being leader or director of the whole. On July 21, the *Vega*, with a crew of about twenty-four men, started from Tromsøe, nearly at the extreme north of Norway. She was accompanied by the small steamer *Lena*, intended to go up the river of the same name to Yakutsk, and there be employed as a passenger and cargo vessel.

On the 23d of July they passed between Waigatz and the mainland, where they were joined by the *Fraser* and the *Express*, English vessels intended to trade on the Yenisei. August began, and matters went on so steadily that by the 19th the *Vega* had reached and rounded Cape Chelyuskin—the extreme northernmost point of the Old World, about midway between the Atlantic and the Pacific; they had a warm current of fresh water from the Obi to the Yenisei. On the 27th the *Lena* parted company from the *Vega*, and started for Yakutsk, taking letters and telegrams from the expedition.

Throughout August, somewhat favourable conditions for the enterprise existed; but when September set in, it brought with it the troubles of the *Vega*. The temperature being now considerably reduced, snow began to fall; and then

came the last day of hoisting sail, for the floating ice, increasing daily in quantity, required a very cautious use of steam and paddle to pass safely between the masses. In truth the summer had come to an end earlier than had been anticipated, and much earlier than officers or crew wished. After the middle of the month the temperature was continuously below zero—itsself 32° F. below the freezing-point; and the speedy approach of winter was evident to all. Would the *Vega* be able to reach Behring Strait in time to beat round into the Pacific Ocean, where a warmer temperature might reasonably be expected? This question was anxiously discussed by Nordenskjöld and Palander; but the climate soon settled the matter, for the *Vega* became so hemmed in with ice that she could no longer move. The 28th of September 1878 was a notable day for both officers and crew, for it marked the beginning of a detention that was destined to continue no less than ten months. Bitter indeed was the disappointment. Calculations showed that the position was only about one hundred miles from Behring Strait, a distance that the *Vega* could have steamed in a couple of days had she not been hemmed in immovably by ice. Professor Nordenskjöld is not the man to make the worst of troubles; but he speaks most feelingly of this sudden quenching of sanguine anticipations.

What to do during the rapidly approaching winter, with its dismal darkness and piercing cold, had now to be determined on. The scientific men

on board soon decided on a plan so far as they were concerned. There were among them naturalists, astronomers, meteorologists, magneticians and electricians, geologists and mineralogists, and they knew that even the ice-bound Arctic coast of Siberia would yield a harvest for those who sought it sedulously. The proceedings they adopted were as follow: They built an observatory on the coast in a curious way; the sailors sawed lumps of ice into brick-shaped pieces, made walls of these, and constructed a little house as well as an observatory. A staircase cut in the ice led up from a small ante-room to the observatory, which was only six or seven feet square. From the roof of the place bearing this dignified name hung a never-extinguished lamp. In the middle was a little table, on each side of which was a gutta-percha air-mattress laid on a sack filled with straw to serve as seats. In the angles of the chamber were the magnetic instruments; while near at hand were books, diaries, and various documents.

A stove was ready to prepare hot coffee. The whole building was covered with reindeer skins and woollen blankets. Even during the coldest part of the winter, magnetical and meteorological observations were continued with great regularity. Sometimes the fog was so dense that it would have been very possible to lose one's way in passing to and fro between the ship and the shore; so, to prevent this, a long avenue of a hundred and seventeen ice pillars was formed, and a rope stretched from pillar to pillar to keep the wayfarers in the right

track. The worst tribulation to bear was that of the terrible storms of wind, which blew the snow along with furious violence. These were the times to keep housed as comfortably as possible. In quieter weather, officers and scientific men alike indulged in skating and various kinds of ball-play, healthful to the system and invigorating to the spirits.

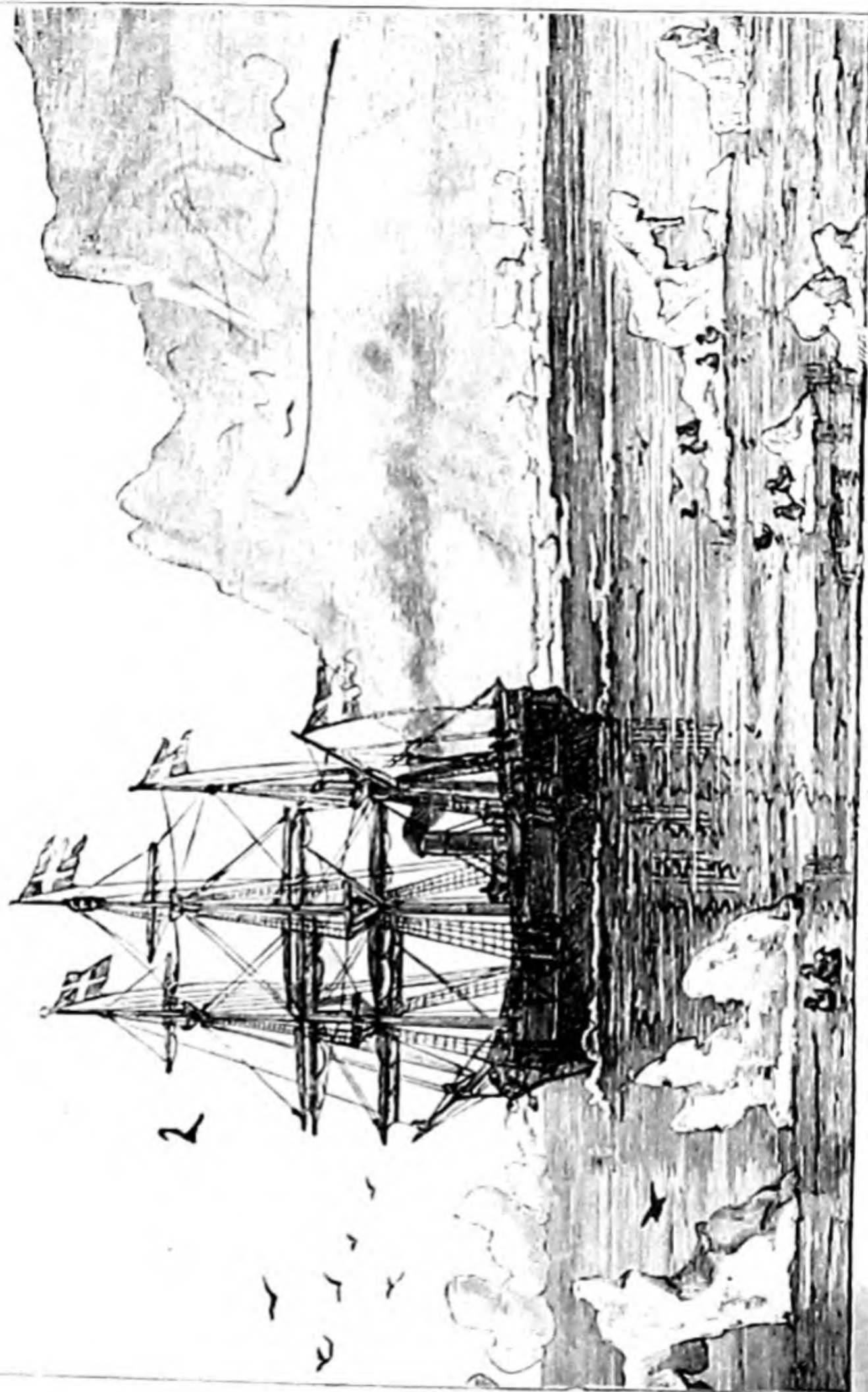
Nor were the crew neglected in the various arrangements for making the winter-quarters as comfortable as possible. The ship was in the ice, about a mile from the shore, to which it was attached by a strong rope. The sides of the *Vega* were composed of two strata of wood, with an intervening lining of felt. At the stern, hot air was made to pass through an open space left between the wood and the felt. By this means the cabins could be maintained at a temperature fifty or sixty degrees higher than the external air. Five stoves were kept constantly heated in different parts of the vessel. Food was good and plentiful, scurvy was 'conspicuous by its absence,' and the general health of all on board was satisfactory. The men had books and simple games; they could sing, and they passed through the long winter cheerfully.

The months of October, November, and December gave to the inmates of the *Vega* a taste of Arctic darkness; in the beginning of the year which followed, January, February, and March had the advantage of presenting a gradual renewal of daylight, but with the accompaniment of much

more intense cold. April, May, and June ushered in beautiful spring; the snow melted and greenery made its welcome appearance on the land, or rather, as Nordenskjöld and Palander tell us, winter burst out into summer without any spring at all. Nevertheless there was the *Vega* still ice-bound, quite immovable.

At length the day of deliverance came. About the middle of July the ice was observed to loosen around the ship. The engine fires were lighted, steam was got up, and on the 18th the paddles set the vessel in motion. The delight of all on board at thus escaping from the three hundred days of icy imprisonment may readily be imagined. To show how tantalising had been the frustration experienced in the previous September, it may suffice to say that the *Vega* reached Behring Strait from the wintering-place in two days, and soon afterwards beat round into the great Pacific Ocean, having Asia on one side and America on the other.

During this prolonged detention the *Vega* was seen at some distance by a few men engaged in the whale, seal, and walrus fisheries, and visited by a few native Siberians who had found their way to the coast. Letters and telegrams were sent by Nordenskjöld through two or three of these natives to Europe—a handsome reward tempting the messengers. But the distance travelled was so immense, extending over so many thousands of miles, on foot and on sledge, by boat and by posting, that Europe knew nothing of the messages till many months afterwards. When the lapse of time and

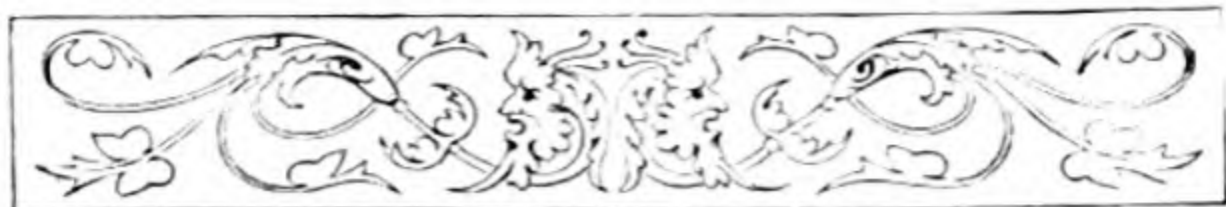


THE VEGA PASSING THE NORTH-EAST CAPE OF ASIA

the statements of natives made it evident that the *Vega* was hemmed in by ice near Behring Strait, schemes of rescue were planned; but as the ship escaped from her imprisonment unaided, we need not describe these.

Nor is it needful to dwell on the triumphant return of the good ship to Europe. Nordenskjöld was under no necessity to hasten his voyage; he sailed leisurely down the Pacific on the Asiatic side, making stoppages at Kamtchatka, Japan, China, and so on to Singapore. Then came the voyage across the Indian Ocean to Ceylon and Aden, followed by an advance up the Red Sea and through the Suez Canal to the Mediterranean. On reaching European shores quite an ovation was in store for Nordenskjöld and his trusty companions. The second half of 1879 and the first quarter of 1880 were consumed in these proceedings; until at length all the civilised world knew something about the discovery of the North-East Passage.





MISS BIRD'S TRIP TO THE SANDWICH ISLANDS AND ROCKY MOUNTAINS.

SAILING in a south-west direction from San Francisco, we, at a distance of two thousand and eighty-one miles, arrive at a group of islands, reckoned to be the most beautiful in the whole Pacific Ocean. These are the Sandwich Islands. They lie in latitude twenty degrees north of the equator, and are, therefore, tropical in character, with a climate so charming, that in our northern regions we can hardly form an idea of the enjoyment which it confers. These singularly interesting islands were discovered and visited by Captain Cook more than a hundred years ago; and on one of the islands, Hawaii, he met his death at the hands of savages, 14th February 1779. Since that time, the natives have been, in a way, civilised and Christianised, and changed considerably in a social point of view. For this change they are, we believe, principally indebted to Americans from the United States.

The Sandwich Islands, lying as they do apart

from general traffic, are visited by few travellers. Only for some special purpose are they sought out and explored ; hence not much is known about them, further than that they maintain an independent existence under a native king, who reigns in a kind of constitutional manner, and that they form an agreeable place of residence. An Edinburgh lady, named Isabella L. Bird (now Mrs Bishop) visited these islands, and from time to time sent home glowing letters, descriptive of what she saw and what she did, to a sister in Edinburgh. These letters were afterwards gathered together into a volume entitled *Six Months among the Palm Groves, Coral Reefs, and Volcanoes of the Sandwich Islands* (Murray : 1875). This visit to the Sandwich Islands was but the precursor of other journeys, for Miss Bird is one of the most far-travelled ladies of our time. She has visited the Rocky Mountains ; many out-of-the-way parts of Japan ; and the Straits Settlements. In her journey to the Sandwich Islands, she did not make a hurried or perfunctory visit, having been six months in the islands, travelling about, walking, boating, or on horseback, making herself acquainted with the varied scenery, the people, and their habits.

Miss Bird is one of the most courageous and enduring lady-travellers. She does not, as is the manner of lady-tourists generally, trust to public conveyances. As an accomplished equestrian, she prefers to journey chiefly on horseback. Dressed in a kind of Bloomer costume—a wide-awake hat, a close-fitting gray cloth jacket, short petticoats

and trousers of the same material, with frill at the ankle, and a stout pair of boots, she is ready to mount and be off for hundreds of miles. Taking with her only a small bag, she is not encumbered with luggage.

Miss Bird landed first at Honolulu, the capital, situated on the island of Oahu, one of the more northerly of the group, and considerably less in size than Hawaii, which lies on the extreme south. Honolulu is an enterprising little town, and from its natural beauty has been called 'the Paradise of the Pacific.' It is built literally in the midst of a garden. Every house has its piece of ground attached, and so luxuriant are the plants amid which each dwelling is embowered, that it is often difficult to distinguish what is house and what is vegetation. The houses are built of cream-coloured coral conglomerate, of *adobe* or sun-baked bricks, or of grass or bamboo. The last are chiefly occupied by the natives, are very neatly constructed, and mingle in picturesque contrast with the more imposing dwellings of the white residents. Every house has its deep veranda, hidden beneath a marvellous profusion of trailing plants, glossy leaved, bright blossomed, and ever fragrant, the passion-flower, hibiscus, and gorgeous flame-coloured bougainvilliers, mingling with familiar fuchsia, jessamine, and geranium.

The town nestles amid a grove of tropical trees, coco and date palms, bread-fruit, bamboo, caoutchouc, orange, candle-nut, fan-palms, bananas, and the beautiful papaya; and in the shade of this perennial

greenery the people live. Through the breaks in the dense leafage, glimpses are caught of the white coral reefs that girdle the islands on every side, with the wavy line of surf breaking upon them; and beyond that, of the wide blue Pacific, sleeping still and dream-like, or ruffled to whiteness by the brisk trade-winds. All day long is heard the low, rhythmic beat of the surf washing on the coral barrier. The people of Honolulu, as of Hawaii generally, are kind, friendly, and hospitable in the extreme. Americans predominate among the foreign residents, and give the prevailing tone to society. On this account, English visitors, finding the social customs of the white population in Hawaii somewhat strange, and not staying long enough to become accustomed to them, sometimes leave the islands with an impression less favourable than would have been the case after a more intimate acquaintance. Miss Bird, being already familiar with American customs, and appreciating many of them, at once found herself at home in Hawaiian society, and was everywhere received with the kindest welcome.

The home-life of the foreigners is at once simple, genial, and refined. Female domestic servants are rare, and the ladies do much of their housework themselves, one consequence of which is that they enjoy excellent health, their household duties affording them sufficient exercise during the mornings, while leaving the after-part of the day free for recreation and the interchange of hospitalities. There is nothing of the stiffness, constraint, and

formality which seem inseparable from life in older and colder lands. There are no such things as door-bells, no announcements of visitors by servants, no 'not-at-homes.' After six o'clock supper, people take their lanterns, and visit their neighbours, and are met by them either in the verandas or in the cheerful parlours that open upon them. An air of graceful ease and refinement pervades the household arrangements and the general tone of society. The people give much time and attention to amusement and the entertainment of each other, but underlying this there is a real friendliness, a sincere cordiality, and the most considerate and sympathetic kindness to strangers. The blemish in Hawaiian society seems to be an intense love of gossip.

From Honolulu, Miss Bird went to Hilo, in the island of Hawaii. For natural beauty, Hilo surpasses Honolulu, and she seems to have preferred it as a place of residence to any spot in the islands which she visited, and there were many which she found most congenial. The object of most absorbing interest in Hawaii is the burning mountain of Mauna Loa, the largest active volcano in the world. Miss Bird went through some not altogether pleasant experiences in order to see this extraordinary phenomenon, but was rewarded by witnessing the Kilauea crater under especially favourable conditions.

The crater, she tells us, is one huge pit in the flank of the Mauna Loa mountain, five hundred feet wide at its narrowest part, nearly half a mile at its broadest. Within this abyss, boils and seethes,

and throbs and roars, a vast sea of lava, surging against the rocky barrier which surrounds it with a sound like an angry ocean breaking upon an iron-bound coast. From the centre of the lake, ever and anon leap up crimson fountains of angry flame, whose fiery effulgence dyes the heavens blood-red. The whole spectacle is one of indescribable force, commotion, terror, glory, and mystery, not unmingled with an awful and imposing beauty. On another occasion, during her stay in the islands, Miss Bird visited the crater of Kilauea, when she found its appearance had entirely changed. The crater was now greatly more active; all beauty had gone from it, and the only impression left upon the mind of the on-looker was one of awe and horror. To stand for a moment on the brink of the pit, and catch a hurried glimpse of the terrible abyss, wallowing in frightful confusion, with a roar as of thunder, and volleying forth stifling clouds of sulphurous gases, was in truth 'to snatch a fearful joy.' Miss Bird ascended from the crater 'sore, stiff, bruised, cut, singed, grimy, with her thick gloves shrivelled off by the touch of the sulphurous acid, and her boots nearly burned off.' These unpleasant experiences notwithstanding, she would not have willingly missed the awful sublimities she had witnessed; and a day or two after, she was able to accomplish the ascent to the summit of Mauna Loa, three miles above the sea-level. Only once before had the ascent of Mauna Loa been made by a lady. Miss Bird also ascended to the summit of the crater of Mokuaweoweo, the circumference of

which measures six miles. The crater of Mokuaweoweo presents a spectacle of supreme beauty; a symmetrical fountain of clear golden fire playing up from its midst to a height of two hundred, three hundred, and sometimes six hundred feet, the reflection of which may be seen at a distance of a hundred miles.

Miss Bird wandered freely through the beautiful island of Hawaii, and its neighbours, Maui, Kauai, and Oahu, exploring their remotest recesses, and traversing their most secluded cañons. The cañons or glens form a marked feature in the scenery of the Sandwich Islands; deep ravines or gulches leading from the mountains to the ocean, and widening as they approach the sea. It is here that the tropical vegetation is seen in its greatest luxuriance, here that nature puts forth her supremest efforts. Miss Bird describes very vividly these cañons, with their cool dark depths, their trees of matchless grace and beauty, feathery palms of every variety, draped and stem-hidden by trailing ferns and mosses, and brilliant-tinted, fragrant-blossomed creepers, through whose leafy screens the sunlight penetrates only in trickling rays. Through all these gulches water flows, sometimes in still clear streams, sometimes in broad rushing rivers, a mile and more wide as they near the sea. Their secret recesses are silent worlds of beauty, where nothing breaks the hush of the noontide, save the whir of some scarlet bird as it flashes for a moment through the darkling greenery.

The Hawaiians live in a land where little toil is

needed to produce in abundance the necessaries of life, and these are all they desire. They have no ambition beyond the day, no wish but that of perpetual holiday-making. Though the men are capable of extraordinary efforts in the way of horse-riding, lassoing, and surf-riding, it is only under occasional circumstances that they indulge in such vigorous exercises. Generally speaking, they are exceedingly indolent, and this, more than anything else, is proving fatal to them as a people. The Hawaiians are a vanishing race, and have been such ever since the introduction of civilisation among them. It is the old story, which we have seen so often reproduced. The white man comes, and the dark man vanishes. In the case of the Hawaiians, however, there has been no struggle of races. The white population have always mingled on the friendliest terms with the natives, and treated them with sympathy and consideration. The king of the islands is still a native. All the efforts of the white man have, during recent years at least, been for the social and moral improvement of the native inhabitants. Still, the fact remains that, since the introduction of civilisation, the native population has rapidly diminished. It was estimated by Captain Cook at four hundred thousand; in 1872, it was forty-nine thousand. At the present rate of diminution, it will not be very long before there is not a single native Hawaiian in the islands.

MISS BIRD'S TRIP TO THE ROCKY MOUNTAINS.

For a lady who travels about in the independent manner of Miss Bird, no country is better adapted than the United States. After having paid her visit to the Sandwich Islands, she appears to have proceeded to San Francisco, with the view of undertaking a horseback journey among the Rocky Mountains. Except for the purpose of seeing two or three out-of-the-way places, there was no absolute necessity for travelling on horseback, because there are railway trains for general accommodation; but Miss Bird preferred to ride in the open air for the sake of health and agreeable excitement, as well as not to be bound to go in particular directions. She accordingly adopted the alternative of 'roughing it,' and ran the risks attending a hazardous journey through high-lying wildernesses covered with snow, and containing, at the time of her visit, few settled inhabitants.

Though concealing the fact, there is reason to believe that her excursion took place towards the end of 1875, since which great changes have taken place through her whole route. Her descriptions are lively and amusing. With a keen sense of the grand and picturesque, she presents striking accounts of the Rocky Mountains, and the valleys of matchless beauty lying amongst them, at a height of eight to eleven thousand feet above the level of the sea. The dryness and purity of the air in these valleys or plains in the depth of winter, remind us of what

is told of Davos in Switzerland, and in a similar way they will no doubt become, if not already so, health-resorts for American invalids.

Starting from San Francisco early in September, Miss Bird travelled for a certain distance in one of the railway cars, and was struck with the prodigious fertility and beauty of California on the Pacific slope. 'From off the boundless harvest-fields the grain was carried in June, and it is now stacked in sacks along the track, awaiting for freightage. The barns are bursting with fullness. In the dusty orchards, the apple and pear branches are supported under the weight of fruit; melons, tomatoes, and squashes of gigantic size lie almost unheeded on the ground; the cattle, gorged almost to repletion, shade themselves under the oaks; superb "red" horses shine, not with grooming, but with condition; and thriving farmers everywhere show on what a solid basis the prosperity of the "Golden State" is founded.'

Reaching the lower mountain passes, the train winds through ravines dizzy to look at, in one place passing under wooden sheds or galleries, to keep off the snow, for a distance of about fifty miles. Then come grand pine-forests and lakes. Ultimately the 'lumbering town' of Truckee is reached, and here Miss Bird gets out in the middle of the night to find an inn, where 'pistol-shots' in the bar-room are, it is stated, of frequent occurrence. Here she procures a night's lodging. In the morning she hires a horse—an unruly snorting beast—and sets out—exhilarated with the infor-

mation that she might keep an outlook for some grizzly bears that had been perambulating in the neighbourhood. Caring nothing for the 'grizzlies,' she is enchanted with the magnificent scenery. 'Crested blue jays darted through the dark pines, squirrels in hundreds scampered through the forest, red dragon-flies flashed like living light, exquisite chipmonks ran across the track, but only a dusty blue lupine here and there reminded me of earth's fairer children.' Riding on, she reached Lake Tahoe, a beautiful sheet of water, which never freezes; and here, at a wooden inn, she remained a week, taking sketches of the entrancing scenery. Having finished this side-tour, she returns to Truckee, no one molesting her, and receiving on all occasions tokens of respectful courtesy.

Miss Bird now went by train on a distant excursion to Cheyenne, in Wyoming, which took her through Salt Lake Valley. Cheyenne, which started into existence in 1867, is now a large city, with some thriving manufactories, particularly that of jewellery from the moss agate. Thus settled, it has happily lost its reputation for Lynch-law, for which, we are told, it was once specially noted. From this place Miss Bird went forward to Greeley, a temperance colony, and there stayed a night at an inn. She found the weather hot, and the air thick with black flies. Here she helped the landlady to get supper ready, then went to bed, only to be awakened by swarms of bugs, which are 'a great pest in Colorado.' She was obliged to get up, and sleep on

the wooden chairs. In the morning, she went in a wagon to Fort Collins. The inn there was better, but full of black flies with the addition of locusts. Next she gets on in a hired vehicle to a place where she expected to be accommodated at a boarding-house; but there was no trace of a house, only a semi-ruinous log-cabin occupied by a family of Scotch descent. There was no choice but to ask for lodgings, the boon being sulkily granted. In this den she lives a week, helping in the miserable housekeeping, and sleeping at night on the floor. Her only mirror was the polished inside of her watch-case. The family, which had only one comb among them, bivouacked outside under the trees, which is practicable in Colorado a large part of the year.

Disappointed in not finding her way in this quarter to Estes Park, she purchases a horse, a shifty half-broken animal, from her host, and proceeds to Lower Cañon, where she is kindly lodged by Dr H——, an English gentleman, who was endeavouring to gain a livelihood by his profession, aided by farming operations. From him she procured a good horse, full of spring and spirit, tame and sure-footed, and on it Miss Bird succeeded this time in finding the right track to Estes Park, by the beautiful cañon of St Vrain. Two young men escorted her part of the way. In a wild lofty region, the party approached a hut, near which was a big dog in a threatening attitude, and all about were heaps of peltry and the offal of animals. Who was the inhabitant of this

solitary den? A trapper, hunter, ruffian, desperado. Aroused by the barking of the dog, this somewhat terrific person made his appearance, with a knife in his belt, a revolver in his breast-pocket, and wearing dilapidated moccasins on his bare feet. He had long curling hair, and only one eye, the other having been lost in an encounter with a grizzly. He received Miss Bird affably, saying that he knew from her voice that she was a country-woman of his. His name, as she afterwards learned, was Nugent. An English gentleman by birth, he had been badly brought up, took to evil courses, fled to America, and was now known as Mountain Jim, having long been a terror in this remote district. Procuring some information from this unfortunate being, Miss Bird reached Estes Park, which at one end is bounded by Long's Peak, the American Matterhorn, 14,700 feet high.

As already mentioned, there are several large Parks or valleys among the Rocky Mountains, and Estes Park is said to be the most picturesque. 'It is an aggregate of lawns, slopes, and glades about eighteen miles in length, but never more than two miles in width. Grandeur and sublimity, not softness, are its features.' Several streams wind their way through it. Miss Bird states that the snow which falls here in winter does not thaw, but disappears by rapid evaporation. This is the same phenomenon as that said to be observable at Davos. Where not covered by patches of pine, the ground is covered with grass and wild-flowers. The nearest settlement is Longmount, thirty miles distant. In

the Park, Miss Bird found a group of two or three wooden cottages, in one of which, inhabited by a Mr Evans and his family, she procured quarters. It was a cabin made of big hewn logs of trees, with the chinks between not filled up. Through these openings the snow drives in, and 'covers the floors; but sweeping it out at intervals is both fun and exercise.' As to her accommodation, she was to pay eight dollars a week, have three meals a day, and at any time home-made bread and milk in abundance. Her bed was in a detached cabin, where she was at first alarmed by hearing mysterious noises beneath the floor. They proceeded from a skunk, which had here made his dwelling. No one dared to root him out, for if interfered with, he emitted an odour that was perfectly awful, and could be smelt a mile off. A pleasant neighbour!

Having lived for a certain length of time in this, 'the most entrancing spot on earth,' helping in the kitchen, driving cattle, and riding four or five times a day, Miss Bird rode away in quest of fresh picturesque scenes, and, whatever the fatigue, enjoying herself immensely. Travelling over the mountains, sometimes among the snow, she had the satisfaction of crossing the Great Divide, so called from being the watershed of the Pacific and Atlantic. In one of her long rides, she for a time shared the hospitality of a hut along with others, and here she once more met with Mountain Jim, who in a placid mood told the story of his wasted existence. At the close of the sad narration,

she says with becoming pathos: 'My soul dissolved in pity for his dark, lost, self-ruined life, as he left me and turned away in the blinding storm to the Snowy Range, where he said he was going to camp out for a fortnight.'

Thus travelling about for months, she is put to some straits as regards her personal equipments. Speaking of her apparel, she says: 'I came to Colorado now nearly three months ago, with a small carpet-bag containing clothes, none of them new; and these, by legitimate wear, the depredation of calves, and the necessity of tearing them up for dish-cloths, are reduced to a single change! I have a solitary pocket-handkerchief, and one pair of stockings, such a mass of darns that hardly a trace of the original wool remains. Owing to my inability to get money in Denver [caused by the stoppage of the banks], I am almost without shoes, have nothing but a pair of slippers, and some "arctics." For outer garments—well, I have a trained black silk dress, with a black silk polenaise, and nothing else but my old flannel riding suit, which is quite threadbare, and requires such frequent mending that I am sometimes obliged to "dress" for supper, and patch and darn it during the evening.' But her privations do not cause serious discomposure. On one occasion she breaks out in contemptuous remarks on the frivolities of fashion, speaking almost with disgust of the fantastic style of ladies' head-dresses as usually seen in church.

Writing to her sister on the 4th December, Miss Bird says the cold is intense, being eleven

degrees below zero, and that she has to keep her ink on the stove to prevent it from freezing. Cold as it was, and with the snow deep on the ground, and still falling, she rode off on her faithful horse 'Birdie,' on a long ride towards the plains. She says everything looked vast and indefinite. 'The fog grew darker and thicker, the day colder and windier, the drifts deeper; but Birdie, whose four cunning feet had carried me six hundred miles, and who in all difficulties proves her value, never flinched or made a false step, or gave me reason to be sorry that I had come on.' Alighting at a house thirteen miles from Longmount to get oats, she adds: 'I was white from head to foot, and my clothes were frozen stiff. The woman gave me the usual invitation: "Put your feet in the oven;" and I got my clothes thawed and dried, and a delicious meal, consisting of a basin of cream and bread.' She was recommended not to proceed; but went on through the terrible wintry scene. Luckily, she reached Longmount, but in such a benumbed condition that she had to be lifted off her horse and carried into the house, to be warmed and wrapped in blankets. Next day she perseveres in going forward, and ultimately suffered no inconvenience from the journey. Exposure to severities of this kind in England would have finished her. In the western part of the United States, the dryness of the air seems to have saved her from injury.

In one of her later excursions, Miss Bird accidentally met her two acquaintances, Evans and Mountain Jim, who appeared to be on good terms

with each other, and who parted amicably. Shortly afterwards, however, she received the sorrowful intelligence that on account of some ground of quarrel, Evans on his own door-step shot Jim while he was unsuspectingly passing his cabin. Poor Jim fell to the ground with a bullet lodged in his head, but lived long enough to give his own statement, and to appeal to the judgment of God as to the unprovoked manner in which his life had been taken. What was done, if anything, to Evans for this foul murder is not stated. Miss Bird shrinks from the subject, 'as too painful to dwell upon.'

We gather from the present narrative of adventure, that the larger number of these atrocities are committed through the influence of drink, usually a coarse kind of whisky, dispensed in bar-rooms and groggeries. It was in such haunts that Mountain Jim had spent his means, and from which he returned with passions roused to madness. Miss Bird earnestly recommended him to give up the whisky which had been his ruin. But he said he could not. In short, he was one among many thousands who, by an uncontrollably depraved appetite, are constantly imperilling all that life holds valuable.





LIVINGSTONE AT WORK ON HIS JOURNAL AT UJIL.



LIVINGSTONE IN AFRICA.

AFRICAN EXPLORATION is a subject which, ever since the days of James Bruce and Mungo Park, has been attractive to Englishmen. If Bruce had reached the true sources of the Nile, Park those of the Niger, and other travellers those of the Congo or Zaire and of the Zambesi—if this had been done sixty or eighty years ago, doubtless many valuable lives would have been saved; but we should on the other hand have lost those narratives of courage, endurance, pluck, inventive resource, scientific observation, energy tempered by caution, firmness tempered by kindness, which never fail in stirring one's blood. There is something captivating, also, in a little tinge of mystery. So long as the great African rivers had *not* been traced to their true sources, they formed a mighty geographical puzzle, on which the imagination could dwell at pleasure.

Most of us know that the exploration of Africa has generally commenced from some port or ports on the coast where European consuls are

stationed; and has had its goal in the interior, where black tribes have to be encountered. Thus, at various dates during the first half of the present century, Lichtenstein penetrated north to the Bechuana country from the Cape of Good Hope; Mungo Park, having in his first journey formed the opinion that the Niger and the Congo were outlets of the same river, made his second journey, which ended fatally; Burckhardt made many discoveries in the north-west regions of Africa; Clapperton and Denham penetrated from the Mediterranean coast to the Soudan, across the whole breadth of the frightful Sahara; while Richard and John Lander traced the Niger to the Gulf of Benin.

In the exploration of Southern Central Africa, a beginning was first made in 1798 by two Portuguese gentlemen, Lacerda and Pereira, who, starting from Tette, a Portuguese settlement on the Zambesi, penetrated to the town of the Cazembé, in the middle of the country. Four years later, two native Portuguese traders made their way from Angola on the west, to the Portuguese possessions on the east coast, and returned by the same way in 1814, being the first travellers who crossed the continent. The route from Tette to Cazembé was again explored in 1830 by Major Monteiro. But little certain information resulted from these expeditions, and that little had hardly been heard of in Europe; so that when Livingstone entered on the field in 1850, it was, with the exception of Monteiro's route, almost a blank.

What may perhaps be regarded as the modern

series of African explorations, penetrating quite to the heart of the continent near the equator, commenced when the heroic DAVID LIVINGSTONE began his good work. Tramping inland from the Cape of Good Hope, or from the mouth of the Zambesi in the Mozambique district, he discovered Lake



Map of Central Africa.

Ngami; then a vast range of new country between the Zambesi and the west coast at Loando; afterwards reaching the beautiful Lake Tanganyika. What he underwent during all these years of exhausting labour, his published narratives tell us. Even four years before his death, he spoke thus of

his troubles when crossing the swollen streams that flow into Tanganyika: 'Only four of my attendants have come here; the others on various pretences absconded. The fact is, they are all tired of this everlasting tramping; and so verily am I. Were it not for an inveterate dislike to give in to difficulties without doing my utmost to overcome them, I would abscond too.' There spoke the man, in his true dauntless character.

If David Livingstone had never afterwards become famous as a man, he would be worthy of notice as an extraordinary boy. He was born at Blantyre in Lanarkshire, March 19, 1813. His parents were very poor, and could give him little education; indeed, at the age of ten, his schooling seems to have been over, for at that early age he was employed as a 'piecer' in a cotton-mill at Blantyre, near Glasgow. Young Livingstone set to work, therefore, to educate himself. He used to fasten his book to his spinning-jenny, so that his eye could catch the sentences as he passed backwards and forwards in the course of his labour. He was so industrious that, by the time he was nineteen, he had gained considerable knowledge both of Latin and of science. At nineteen, being in receipt of full wages as a spinner, he was able to afford the expense of attending lectures on medicine at Glasgow; but as there were no railways in those days, he had to travel on foot the whole distance, which was nine miles. But Livingstone had set his heart upon becoming a missionary, and was not to be kept from his studies by such a trifle

as a daily walk of eighteen miles. By the time he was seven-and-twenty, he had passed his examinations in medicine and religious knowledge.

LIVINGSTONE'S FIRST AFRICAN JOURNEYS.

Livingstone began his career in 1840, under the auspices of the London Missionary Society, as a medical missionary among the Bechuanas (or Betjuans) north of the Orange River in South Africa. He had settled down previous to this for a little while at Kuruman with the well-known missionary, Dr Moffat, whose daughter he afterwards married. At Mabotsa, north-east of this place, he was attacked by a lion which crushed his left arm and nearly finished his career. This arm, by being badly set, was afterwards a trouble to him, and helped to identify his body after his death. His first proceeding, on arriving at his destination, shows the character of the man—sagacity in discerning the right means to his end, and resoluteness to do in the best manner whatever he set his hand to. 'Here,' he says, 'in order to obtain an accurate knowledge of the language, I cut myself off from all European society for about six months, and gained by this ordeal an insight into the habits, ways of thinking, laws and language, of that section of the Bechuanas called Bakwains, which has proved of incalculable advantage in my intercourse with them ever since.'

Sechele, chief of the Bakwains, and a man of great intelligence, became a convert, and learned

to read. Seeing Livingstone anxious that his people should also believe, Sechele proposed a novel method of converting them. 'Do you imagine these people will ever believe by your merely talking to them? I can make them do nothing except by thrashing them; and if you like, I shall call my head men, and with our litupa' [whips of rhinoceros-hide] 'we will soon make them all believe together.'

While stationed at Kolobeng, in the Betjuan country, Livingstone crossed the Kalihari Desert in 1849, and discovered Lake Ngami, the centre of the internal drainage of the country between the Orange and Zambesi rivers. Elephants, giraffes, buffaloes, zebras, and many kinds of game abound, and three antelopes were shot of a species not yet known in England. The doctor's gun was the first ever fired in that country, and so inexperienced were the animals of their dangerous effects, that they stood still within bowshot, and were easily killed. This country is as different from the arid region to the south as it is from the swamps and forests of the western coast. It is elevated, cooled by pleasant breezes, and abounds in fruit and grain. This is the habitat of the true Nigritian, the curly-headed, jet-black negro, whose intelligent though simple race, when quickened by European knowledge, will one day rule the continent.

A striking token of the direction of the genius of this people towards civilisation, is to be found in the social condition of their women. The will of the women is paramount, and at times they even become chiefs. 'If a man were asked to go any-

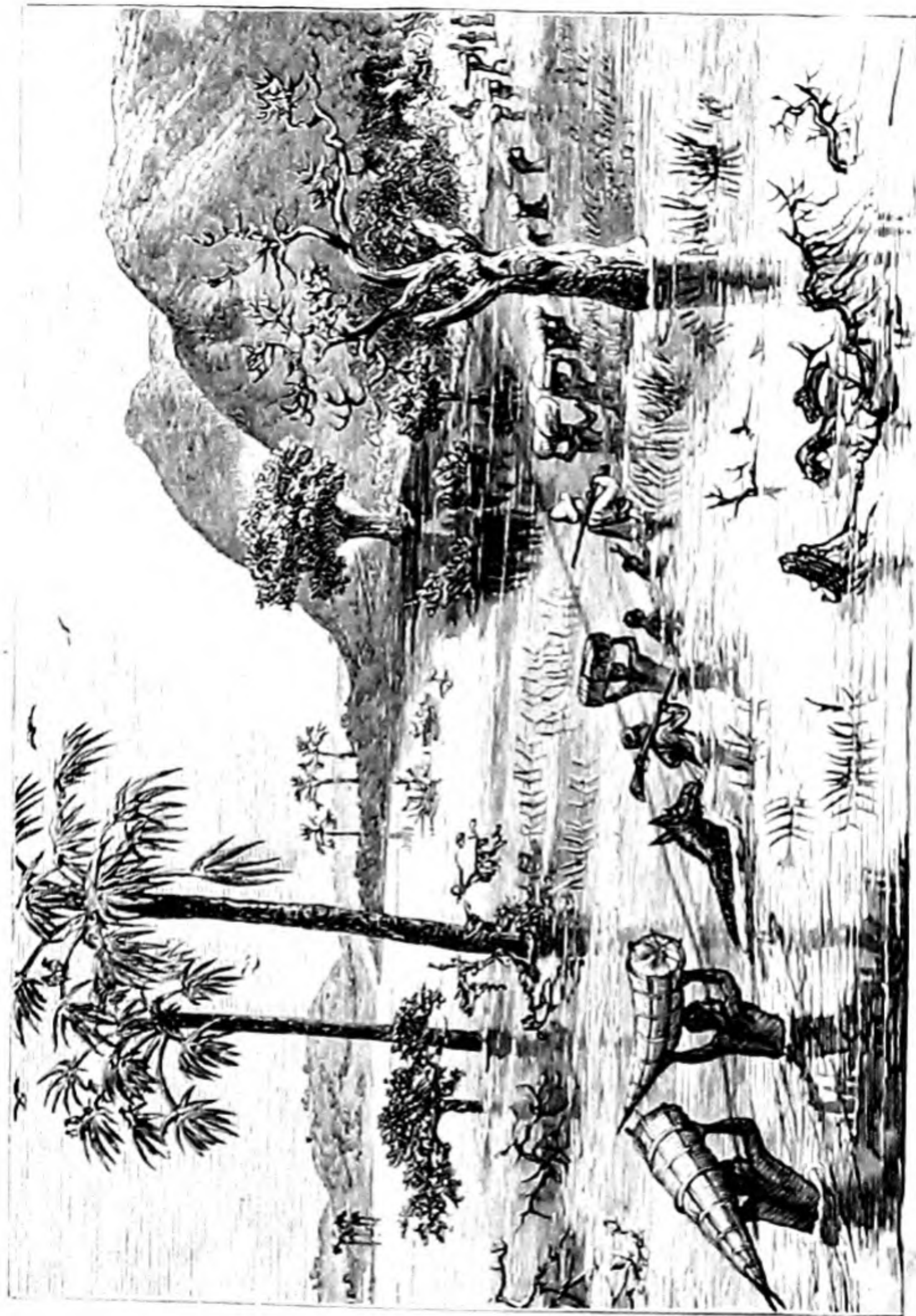
where,' said Livingstone, 'or to agree to any arrangement, he answered: "I must go home and ask my wife." If she said "No," there was no possibility of getting him to move. Women sit in the councils; and while a Bechuana swears by his father, these negroes swear by their mother.' It may even be inferred that the ladies occasionally carry their supremacy a little too far; for if a woman beats her husband, both, we are told, are taken to the market-place, and the wife is compelled to carry her injured lord home on her back amidst the cheers of the people. On these occasions, however, the women generally cry out: 'Give it him again!' In all parts of his travel, the women showed great kindness to Livingstone and his party; and, what is noteworthy, the English name is known as that of a people 'who like the black man.'

In 1850 he visited the chief of the Makololo, a Betjuan tribe, who, some years before, had emigrated to the basin of the Zambesi, and there established an extensive dominion over the indigenous negro tribes. Their capital was at Linyanti, on the Chobe, which falls into the Zambesi near the point where this river bends eastwards in S. lat. 18°. Livingstone and his companions were the first white people that had been seen in the valley of the Upper Zambesi; and the extension of the river so far west had previously been unknown. The little commercial intercourse the inhabitants had had with the Portuguese colonies on the west was through the Mambari, an intermediate tribe, who had begun to introduce the slave-trade, by tempting them with

guns and other articles of European manufacture, but refusing to take ivory or cattle in exchange, and insisting on having boys.

To counteract this pernicious movement, and to promote the gradual civilisation and christianising of the region, Livingstone resolved on seeking out a route of direct commercial communication with the coast, without the intervention of the slave-dealing Mambari. Returning, accordingly, to Cape Colony, where he saw his family off to England, he prepared for his expedition, and arrived again at Linyanti in May of 1853. He now spent several weeks in company with the Makololo chief Sekeletu, in exploring the Zambesi valley as far north as S. lat. 14° , to the confluence of the Leeba and Liambye. The country is fertile beyond description, the pastures seeming to be inexhaustible. The Makololo are great rearers of cattle. The chief grain cultivated is the *Holcus sorghum*, or doura; maize and beans are also raised, and a variety of vegetables. The hoe (a native manufacture of iron) is the implement of culture. The number of large game is prodigious—elephants, buffaloes, the magnificent eland and other antelopes, zebras, &c.; while the rivers swarm with hippopotami. One great drawback is the tsetse, a fly which infests certain circumscribed localities, and whose bite is fatal to domestic animals—the horse, the ox, the sheep, and the dog; while it is harmless to all kinds of game, and also to the mule, the ass, and the goat, as well as to man.

Returning to Linyanti, Livingstone now made



CROSSING THE MAKATA SWAMP.

ready to set out on his great expedition. Sekeletu and his people entered warmly into his views, and twenty-seven Makololo men were appointed to escort the traveller. Proceeding in canoes, they soon reached the confluence mentioned above, and then followed the Leebe, which comes from the north, until a waterfall obliged them to quit the boats, and continue their journey by land. On leaving the kingdom of the Makololo, they came into the country over which the Muata Yanvo is the paramount chief. The country is generally flat; some tracts being woody, others consisting of meadow-like valleys. At the watershed between the Leebe and Kassabi rivers, the elevation was 4700 feet. It rained incessantly; and the traveller had to pass through a flooded country, and suffered greatly from fever.

The Balonda tribes, which inhabit this region, are much more superstitious than the tribes farther south. Livingstone and his party were travelling in company with Manenko, a female chieftain. 'We had to cross, in a canoe, a stream which flows past the village of Nyamoana. Manenko's doctor waved some charms over her, and she took some in her hand and on her body before she ventured upon the water. One of my men spoke rather loudly when near the doctor's basket of medicines. The doctor reproved him, and always spoke in a whisper himself, glancing back to the basket, as if afraid of being heard by something therein. So much superstition is quite unknown in the south, and is mentioned here to show the difference in the feelings

of this new people, and the comparative want of reverence on these points among Caffres and Bechu-anas.' Again: 'They' [the Balonda] 'are very punctilious in their manners to each other. Each hut has its own fire, and when it goes out they make it afresh for themselves, rather than take it from a neighbour. I believe much of this arises from superstitious fears. In the deep, dark forests near each village, as already mentioned, you see idols intended to represent the human head or a lion, or a crooked stick smeared with medicine, or simply a small pot of medicine in a little shed, or miniature huts with little mounds of earth in them. But in the darker recesses we meet with human faces cut in the bark of trees, the outlines of which, with the beards, closely resemble those seen on Egyptian monuments. Frequent cuts are made on the trees all along the paths, and offerings of small pieces of manioc-roots, or ears of maize, are placed on branches. There are also to be seen every few miles heaps of sticks, which are treated in cairn fashion, by every one throwing a small branch to the heap in passing; or a few sticks are placed on the path, and each passer-by turns from his course, and forms a sudden bend in the road to one side. It seems as if their minds were ever in doubt and dread in these gloomy recesses of the forest, and that they were striving to propitiate, by their offerings, some superior beings residing there.'

Livingstone's progress was now much impeded by petty chiefs, who extorted presents as the price of permission to pass through their districts, and thus

bar the intercourse between the interior and the coast. The system more or less followed by kings and chiefs all over Africa, of interposing vexatious delays, and levying blackmail in the shape of presents, constitutes the chief difficulty and danger of African travel. At last the expedition reached the Coanza, in S. lat. 10° , and, passing through the colony of Benguela, arrived at the capital, Loanda, on the 31st of May 1854. Livingstone was so exhausted by fever and dysentery, that he was unable to commence his return journey till the 20th of September. The astonishment of the Makololo men at everything they saw was unbounded. In afterwards describing to their countrymen their feelings on first coming in sight of the sea, they said they had always believed that the world had no end; 'but all at once the world said to us: "I am finished; there is no more of me!"' Being taken on board an English ship of war, they exclaimed: 'It is not a canoe at all; it is a town!' After witnessing the performance of mass in the cathedral, Livingstone overheard them, in talking to each other, remark that 'they had seen the white men charming their demons.' Returning by the same route, the expedition reached the Makololo country in September 1855, after an absence of two years.

Livingstone now resolved to try whether the course of the Lower Zambesi eastward would not furnish a better commercial route. To descend the river by boats was impossible, owing to the great falls of Mosioatunya, at some distance below the

confluence of the Chobe. These falls, which Livingstone visited, and called the Victoria Falls, are the wonder of South Africa. The mighty river is precipitated into a rocky fissure of unknown depth; columns of vapour ascend, which, when the river is full, are seen at a distance of ten miles; and the roar is heard at an equal distance.

Accompanied by 114 Makololo, sent by Sekeletu to carry a consignment of elephants' tusks to the coast, Livingstone started, November 20th, on his eastward journey. Owing to the difficult nature of the country, he did not at first keep by the riverside, but struck north-east to the confluence of the Kafue, which flows from the north. From this point he followed the north bank of the Zambesi to Tette, and thence to Quilimane, on the coast, which he reached in May 1856. Livingstone thereafter paid a visit to England, where he arrived in December 1856, and was everywhere received with the greatest enthusiasm.

Among the gatherings to greet this remarkable person, the most important, in a scientific point of view, was that of the Royal Geographical Society, at which the traveller was, for the second time, presented with the highest distinction it is in the power of the Society to bestow—their gold medal. The first had been awarded to him for traversing South Africa from the Cape of Good Hope by the Lake Ngami to Linyanti, and thence to the west coast, in 10° south latitude; the present was for setting out anew from Linyanti, and completing the entire journey across South Africa.

When Sir Roderick Murchison entered the meeting, accompanied by the distinguished traveller, the latter was immediately hailed by a general clapping of hands, stamping of feet, and such other demonstrations as are resorted to by a British audience when they desire to express hearty admiration, esteem, and welcome. Livingstone was then about forty years of age somewhat spare in face and form, of average height, dark hair, brow furrowed through hardships, and complexion deeply bronzed, almost black, from exposure to a scorching sun.

In presenting the gold medal to the traveller, the representative of the Society did not fail to eulogise in adequate terms Livingstone's great achievements in African exploration. And rightly so; for what Livingstone had done he did without flourish of trumpets, without pecuniary grants from government, and without companions or escort save what the friendship of the natives yielded. Trusting in Providence, and strong in his hopeful self-reliance, he went manfully through the work that lay before him to do.

Livingstone commenced his reply to the gift of the gold medal by an apology for his 'imperfections in speech-making.' Sixteen years' absence from England, and the habit of speaking only the Bechuana and other African dialects during nearly the whole of that time, rendered him less fluent in his native language. The effect was observable also in his manner of speaking, for there was a metallic, ringing character about his voice, similar to what is described as peculiar to certain African tribes, some

of whose sounds resemble the striking together of pieces of copper. His style of speech, moreover, was homely—such as would be familiar to simple-minded men; hence there was a novel sort of pleasure in listening to what he said. His speech, marked by all his natural modesty and unselfishness, might have brought to mind the spirit in which he wrote one of his letters: ‘I am not so elated in having performed what has not, to my knowledge, been done before, in traversing the continent, because the end of the geographical feat is but the beginning of the missionary enterprise. May God grant me life to do some more good to this poor Africa!’ The advice which he gave to some school children in Scotland, ‘Fear God, and work hard,’ he carried out in his own brave career.

LIVINGSTONE’S EXPEDITION TO THE ZAMBESI AND ITS TRIBUTARIES.

In 1858, Livingstone was sent out to Quilimane, on the eastern coast of Africa, as British consul. The Portuguese had played a clever trick, which had long been successful, by pretending that the river Quilimane, sixty miles distant from the mouths of the Zambesi, is the principal entrance to the latter river; so that while the English cruisers were watching the false mouth, slaves were being quietly shipped by the true one. That little device has been rendered inoperative for the future by an examination made of the three branches, and the decision that the Kongone is the best entrance.

The route of the party was therefore to be traced from this entrance, up which they steamed, into sight of a land entirely new to them, and wonderfully beautiful. The giant vegetation of the tropics clothed the river-banks; the towering screw-palms shot lance-like towards the sky, but were softened and beautified by rich clinging garments of many-coloured parasites; and for twenty miles the river wound through luxuriant mangrove jungle. In the grassy glades were herds of buffaloes and antelopes. The loud note of the king-hunter rings through the woods, and the ibis, unaccustomed to the intrusion of steam-paddles on his family repasts, rushes away with an angry scream. So far all was beautiful, and broad fertile lands lie beyond the mangrove jungles, reaching from the Kongone Canal to Mazaro, eighty miles in length, and fifty in breadth, admirably adapted for the growth of sugar-cane, and capable of supplying all Europe with sugar. But the natives are wretched creatures, Portuguese 'colonos,' or serfs.

They were much astonished at the steamers, and remarked that the *Pearl* was like a village; then asked, evidently regarding her, intelligently enough, as a development of their own canoe, if she had been made out of one tree. With such little interludes as witnessing a battle between natives and Portuguese, and the constant encountering of crocodiles and hippopotami, they come to Mazaro, and then to Shupanga, where a one-storied house had been built on a fine site overlooking the river. The lawn sloped down to the wide, island-dotted bosom

of the Zambesi, and to the north stretched magnificent forests and a range of blue hills. Livingstone was to visit this house again in 1862, and to make his wife's grave under one of the noble trees upon the lawn. But that event was as yet far away.

At Tette, whither the party next proceeded, the Makololo recognised Livingstone with great delight. The state of things in this town was deplorable, and afforded a sample of African superstition in almost the lowest possible form. Thirty of the people had died of smallpox, and the chief told Livingstone that they had been bewitched. The people away up the country, in the valley of the Shiré, were not nearly so repulsive. Belief in, and fear of, evil spirits, is their sole religious idea. Their faith in 'medicines' is unbounded, and impervious to attack by experience. A medicine prepared by the elephant doctor is supposed to enable the hunter to attack and kill the formidable beast in safety; and the crocodile doctor dispenses a medicine which secures the purchaser from the jaws of that reptile. Hunting expeditions may, notwithstanding, be unsuccessful, and crocodiles carry off women; but these little occurrences have no power to shake the influence of the medicine-men.

From Tette, the party set out to examine the rapids of Kebrabasa, an undertaking which excited profound astonishment in the minds of the natives, and this not without reason, for the heat and labour and fatigue involved were terrible, and such as must have daunted any persons bent on a less

object than the discovery of a great natural feature. On the return of the party, they had a specimen of the intellectual quality of the native Portuguese. One of them had gone to the governor, and told him gravely that the waters had risen, and become turbid, and that the Englishmen were doing something to the river. They also discovered that they were held accountable for the drought, and this too by yellow Christians, not black heathen.

The amazement created by the exploration of the Kebrabasa Falls by the English party, was mild in comparison with that which was caused by their further determination to explore the Shiré, a tributary of the Zambesi, which joins the latter stream about a hundred miles from the sea. The river, it was alleged, was impassable by reason of duckweed, and the shores were peopled by savage tribes, who shot intruders with poisoned arrows. The governor remonstrated. 'Our government,' he said, 'have sent us orders to assist and protect you; but you go where we dare not follow, and how can we protect you?' No European, so far as they could learn, ever had ascended the Shiré, and the Portuguese believed the Manganja to be bloodthirsty savages. Nevertheless, up the Shiré Livingstone and his companions went. There was a little duckweed, but not enough to interrupt any kind of craft, and that little disappeared after twenty-five miles. As they neared the villages, the natives collected, armed with their bows, and looked dangerous. One chief, named Tingane, who contrasted favourably in point of intelligence with

the native Portuguese, came out with five hundred men, and ordered them to stop. This mighty chieftain was much impressed by the steamer, and instantly divined that these were strange people, of a kind he had never seen before. Tingane was a well-known enemy to slavery, and a barrier to Portuguese access to the inland tribes: so Livingstone landed, and told him they, the English, were come neither to fight nor to take slaves, but only to open a path for their fellow-countrymen to purchase cotton, and anything else, except slaves. On this, Tingane conducted himself in a most agreeable manner, and summoned all his people to hear the explanation. As the English efforts at sea to prevent slavery had reached the knowledge of the natives in very remote places, the travellers were readily and respectfully heard, and the tribe proved very amenable on the subject of cotton-cultivation, and the Bible. The party were a little disconcerted when they discovered that their interpreter was establishing a close relation between the two, by the following simple and explicit doctrine: 'The Book-Book says you are to grow cotton, and the English are to come and buy it;' besides occasionally winding up with a joke of his own invention.

The party went on, meeting with no molestation whatever, but noticing that the natives maintained a strong guard along the shore night and day. They enjoyed to the utmost the delight of pursuing the windings of more than two hundred miles of a previously unexplored river. It would be difficult to

say whether the inexpressible charm of such a situation is derived most directly from its circumstances or from its associations, from the luxuriant lonely beauty of nature, unseen till then by educated eyes, or from the mental contrast produced by the high civilisation represented by the explorers. So, on and on, for two hundred miles of winding river, until stopped by those magnificent cataracts which Livingstone named the Murchison Falls. Then, as a land-journey was not safe until they had cultivated more familiar relations with the natives, they came swiftly back, aided by the current, to Tette. A strange voyage, in a very dubious steamer, called by contemptuous consent, the *Asthmatic*, with herds of hippopotami and shoals of crocodiles swimming about—the former always getting out of the way with ungainly alacrity; but the latter, mistaking the steamer for a swimming animal, making ferocious rushes, and going down like stones, with much ignominy, when close to the paddles.

In March 1859, they started again for their second exploration of the Shiré. The natives were very friendly, and sold them rice, fowls, and corn, besides inviting them to drink beer with quite a British cordiality. Ten miles below Murchison's Falls, they made friends with a chief named Chibisa, who was one of the most remarkable personages whom they encountered. His notions of his own authority were very lofty. He assured Livingstone that he had been an ordinary man before his father died and left him the chieftainship; but on succeeding to the high office, he was conscious of power passing into

his head and down his back, so that he knew he was a chief, clothed with authority, and possessed of wisdom; and people then began to fear and reverence him. 'He mentioned this as one would a fact in natural history, any doubt being quite out of the question.' From this point, the travellers passed in a northerly direction by land to Lake Shirwa, through the country of the Manganja. The attitude of the tribes caused them some uneasiness; but they were never attacked. They found Lake Shirwa a body of bitter water, eighteen hundred feet above the sea, eighty miles broad, and containing fish, leeches, crocodiles, and hippopotami. It was surrounded with most beautiful country, and bounded on the east by a chain of lofty mountains. As they penetrated the unknown land, it grew only more and more beautiful, and unlike all that Africa had hitherto been supposed to be.

Livingstone's third journey up the Shiré was made for the purpose of becoming better acquainted with the people, and of reaching Lake Nyassa on foot. The march to Lake Nyassa was delightful, with all its weariness. The party numbered forty-two, and they were well provided with cloth and beads for purposes of barter and sale. The natives were peaceful, and ready to trade; the country wonderfully and variously beautiful. The Manganja country is profusely watered; they passed seven brooks and a spring in one hour. This in the heart of Africa! The highlands are well wooded, and many splendid trees grow on the water-courses. There are no wild beasts of a destructive kind, and the

country is admirably adapted for domestic animals. The people are very industrious; they work in iron, cotton, and basket-making, and cultivate the soil extensively. They are gentle, and punctiliously polite. They are, unfortunately, much given to intoxication; and have certain ideas of personal adornment to which it is impossible to be reconciled. Tattooing, nose-rings, ear-rings of every kind and degree of grotesqueness—all are endurable in comparison with the *pelele*, a ring of bone or tin, three inches in diameter, inserted into the upper lip, with a thin rim of flesh all round it. It has a ludicrous effect, too, as though the girl were adroitly holding a circular shaving-glass between her teeth.

These people have remarkably white and fine teeth, but they are carefully chipped into resemblance to those of the crocodile or the cat. Skin-diseases are prevalent among them, and many are afflicted with the leprosy of the Cape. Noticing that some of the men were marked with smallpox, Livingstone asked about its origin, whether it had come from the coast or the interior. The chief, anxious to pay a compliment, and amiably tipsy, replied with much graciousness, that he was not sure, but he rather thought it must have come from the English. On the whole, we derive from Livingstone's narrative a pleasing impression of these harmless people, and there is something pathetic in their simple statement of their religious conceptions. 'We live only a few days here, but we live again after death—we do not know where

or in what condition, or with what companions, for the dead never return to tell us. Sometimes the dead do come back and appear to us in dreams; but they never speak, nor tell us where they have gone, nor how they fare.' It is melancholy to contrast the condition of these people as the Englishmen saw them first, and as they saw them when the devastating curse of the slave-traders had passed over their country.

Livingstone reached Lake Nyassa in September 1859, two months before Dr Roscher, who was murdered on his return by the Arab road to the Rumona, and of whose discoveries nothing is known. After his return to Shupango, and an expedition to the country of the Makololo, Livingstone again went to Kebrabasa, and marched across the hills into the beautiful plains of Chicova. Here the camp-life of the party was indeed rude and adventurous, for the country abounded with lions, and the sight of a white man was utterly unknown. The heat was intense, but they journeyed slowly, and held out well, convincing themselves that the European powers of endurance, even in the tropics, are greater than those of the hardiest of the Africans. Here they had to live by hunting, and found their supplies very precarious, for it was very hard to get at the animals, and harder still to get at the natives, who screamed and ran away at sight of the strangers.

At Zumbo they examined, with strange feelings, as may be supposed, the ruins of an ancient chapel, built by the Jesuit missionaries, now

utterly deserted. Near it lay a broken church bell—sad and suggestive object in such a place. The loneliness was appalling; the natives dread the place, and would never go near it; and, apart from the ruins, there was nothing to remind one that a Christian power ever had traders there. On they marched through a beautiful country, where numerous kinds of birds abound, notably the honey-guide, whose wondrous instinct is unfailing; and elephants and buffaloes, together with the less agreeable hyena, wander about in huge herds. The people, the Bazizulu, are brave and gentle.

Striking away northward from the Zambesi, Livingstone explored the country of the Batoka, a remarkably intelligent race, who add the arts of music and a fine sort of wood-carving to various industries. They also maintain a strict and virtuous social system, and have very correct ideas of military organisation. The women are remarkably well clothed; but the men adhere to the primitive condition, and say, philosophically: 'God made us naked, and therefore we never wear any sort of clothing.' Livingstone's heart was saddened by the sight of the terrible evils introduced to the country by the vile slave-hunters, the reckless destruction of human life, and the waste and desolation which follow in the train of their guilty expeditions. Nothing, however, intervened to spoil the eager interest with which they arrived, in company with the English party, at the Balotra highlands, where the exquisite and majestic beauty of the scenery was rendered thoroughly delightful by healthful invigorating breezes, with

the sight of mountain and forest, rich plain, and winding river. The goal towards which their faces were set was the Victoria Falls, the great wonder of the southern continent. When they reached the village of Moachemba, the wide valley lay spread out before them, and they saw the great columns of mist which rises from the Falls, twenty miles away.

On the 9th August 1860, Livingstone and his party embarked in canoes, and glided on for many miles over water clear as crystal, and past lovely islands densely covered with tropical vegetation. Many-coloured flowers and fruits overhung the river's bank, and among the former, the tender blue convolvulus looked down upon them, a familiar blossom, amid the gorgeous strangeness. Their steersman guided them in perfect safety, from gliding water to dangerous rapids, down which many canoes have been hurled, and great elephants and hippopotami have been swept; and after a time of intense excitement, and strictly enjoined silence, they passed into smooth water again, and landed at Garden Island, on the lip of the Falls.

Livingstone makes no attempt to describe the scene, or its effect upon his mind. The one defies the utmost powers of the painter, the other those of the poet. Something like terror there must have been, bewildering awe, taking a long time to calm into admiration, wonder, reverence, love, and prayer. The simplicity of the account given, its reduction to a matter of measurement, is the most satisfactory substitute for description

which is unattainable. The Falls have been formed by a crack right across the river, in the hard basaltic rock which there formed the bed of the Zambesi. 'On measuring the width of this deep cleft by sextant, it was found at Garden Island, its narrowest part, to be eighty yards, and at its broadest somewhat more. Into this chasm, of twice the depth of Niagara, the river, a full mile wide, rolls with a deafening roar; and this is Moni-oa-tunya, or the Victoria Falls.'

The years 1861-3 were spent in various explorations of Lake Nyassa, one object being to determine whether any large river enters its upper end, it being then the prevalent view that the vaguely known Lake Tanganyika had its outflow southwards. A band of missionaries arrived early in 1861 with a view to settle on the Shiré. Livingstone was saddened by the deaths of some of them, but more so by that of his wife, which occurred on the 27th of April 1862, shortly after her arrival from England.

Some years before this (1857-8), the well-known travellers Burton and Speke had been sent by the Geographical Society to ascertain the truth about the great inland sea reported to exist in the equatorial region. Crossing the border mountains from Zanzibar, they explored the great plateau inhabited by the Unyamwesi tribes, and discovered Lake Tanganyika, without, however, being able to ascertain whether the outflow was north or south. At Ujiji, on Tanganyika, the travellers heard of another and larger lake lying to the north-east;

UJJI



VIEW OF UJJI; FROM A PHOTOGRAPH.

and Speke, leaving his companion at Tanganyika, discovered the southern part of the Great Victoria Nyanza, which he rightly believed to be the head reservoir of the Nile.

Bent on following out his discovery, Speke, in company with his companion Grant, set out again from Zanzibar in the end of 1860, and, in January 1862, again reached the western shores of the lake. Proceeding along the northern side, which almost coincides with the equator, he found the outlet; which he called Ripon Falls; the issuing river he called the Somerset. This river he traced for some distance; but being obliged to part with it where it bent westward, he held northward, and came on the White Nile above Gondokoro, which he believed to be identical with his Somerset. At Gondokoro, Speke and Grant met the daring traveller, Mr (now Sir Samuel) Baker, coming to their relief. To him they related their discoveries, and also what they had learned from the natives of the existence of another lake, named Luta Nzige, lying west of their route as they descended, and which they conceived to be a kind of back-water stretching westward from the Somerset at the part of its course they had been unable to visit. This lake, Baker, along with his heroic wife, partly explored in 1864, and named it the Albert Nyanza. The Somerset enters the lake near its northern end; and at a point some fifty miles farther north, the Nile issues from it.

LIVINGSTONE'S LAST SERIES OF AFRICAN JOURNEYS.

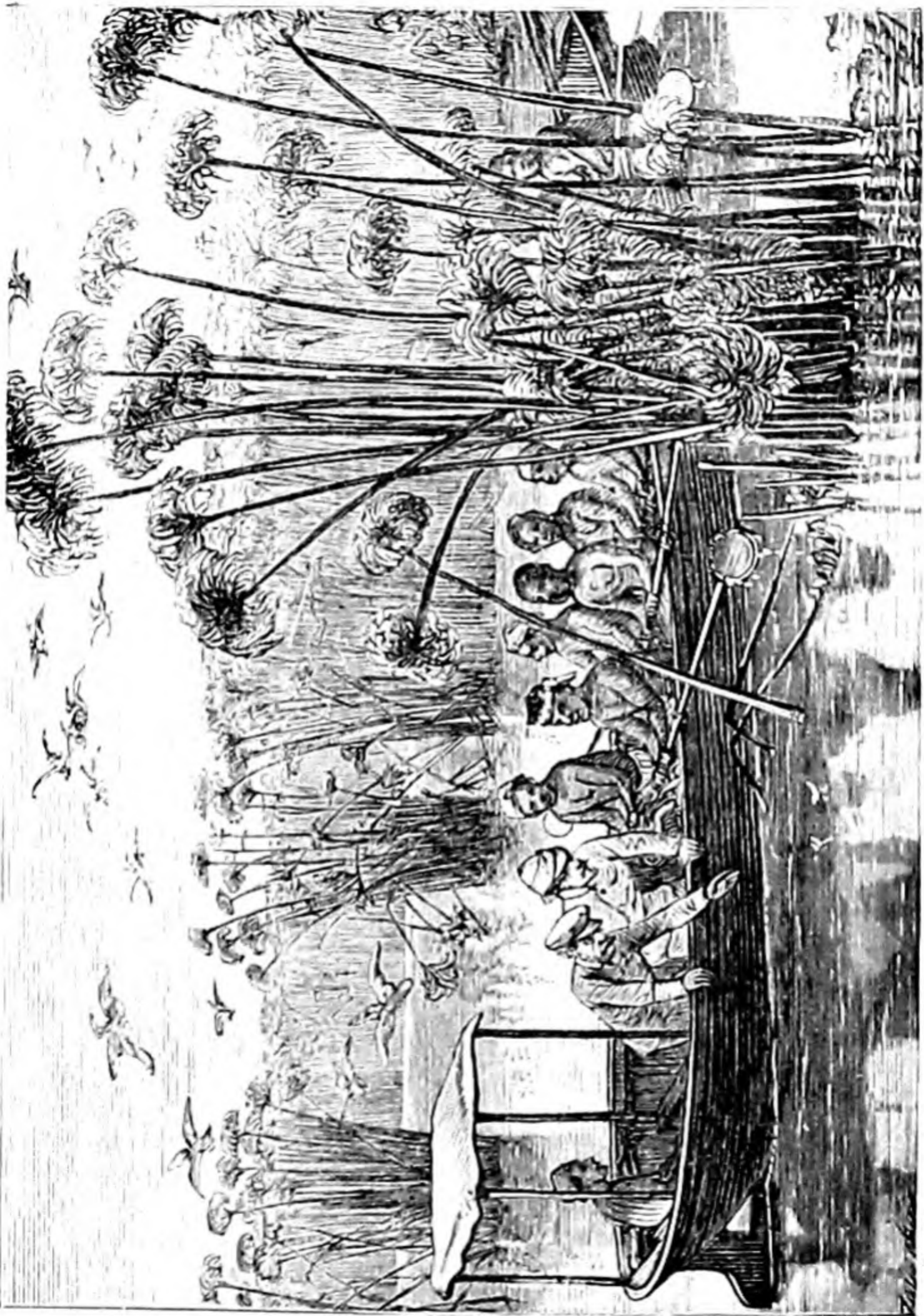
The solution of this great African problem—the true source of the Nile—was now undertaken by Livingstone, who in 1866 began that series of journeys from which he never returned.

Ascending the Rovuma River, he went round the south end of Nyassa, and then struck into the upper basin of the Loangwa, a tributary of the Zambesi, coming from the north. In a letter dated 8th July 1868, he says: 'Leaving the valley of the Loangwa, we climbed up what seemed to be a great mountain mass, but it turned out to be only the southern edge of an elevated region, which is from 3000 to 6000 feet above the sea. This upland may be roughly stated to cover a space, south of Tanganyika, of some 350 miles square.' The Chambeze flows from the eastern side into the centre of the great upland valley. 'I crossed the Chambeze in $10^{\circ} 34'$ S., and several of its confluent, north and south, quite as large as the Isis at Oxford, but running faster, and having hippopotami in them.' Proceeding northward, he discovered, on the northern slope of the upland, Lake Liemba, a southern extension of Tanganyika. Thereafter he visited Lake Bangweolo, or Bemba, into which the Chambeze flows, and followed the stream, now called Luapula, to a lake named Moero. 'On leaving Moero at its northern end, by a rent in the mountains of Rua, the river takes the name of Lualaba, and passing on

north-west, forms [Lake] Ulenge in the country west of Tanganyika.' The account which he sent home of the Arab slave-dealers shooting down the poor slaves in the market-place of Nyangwe, led to pressure being brought to bear on the Sultan of Zanzibar to stop the traffic. Livingstone then returned to Ujiji.

In 1870-71, seeking a possible connection between Tanganyika and Albert Nyanza, he followed the Lualaba as far as Nyangwe, and heard of another lake, which he proposed to call Lake Lincoln, on a tributary coming from the south-west. Meanwhile the report of his death had caused expeditions to be fitted out to go in search of him, including one headed by Mr H. M. Stanley, and equipped at the cost of the proprietors of the *New York Herald* and the *London Daily Telegraph*. Stanley was successful in finding Livingstone at Ujiji, in November 1871, and the news of his success sent a thrill of joy through the civilised world. Together the veteran and the novice explored the north of Tanganyika and made sure that the river Rusizi is not an outflow of the lake towards Albert Nyanza, but an affluent. Accompanied by ten strong paddlers, they went up the Rusizi far enough to see the nature of the stream, and observed that it widened and spread out in a myriad of channels at its mouth, rushing past isolated clumps of sedge and matete grass, and that it had the appearance of a swamp. Thereafter Stanley returned home.

In August 1872, Livingstone set out on his last journey. Still in the belief that the sources of



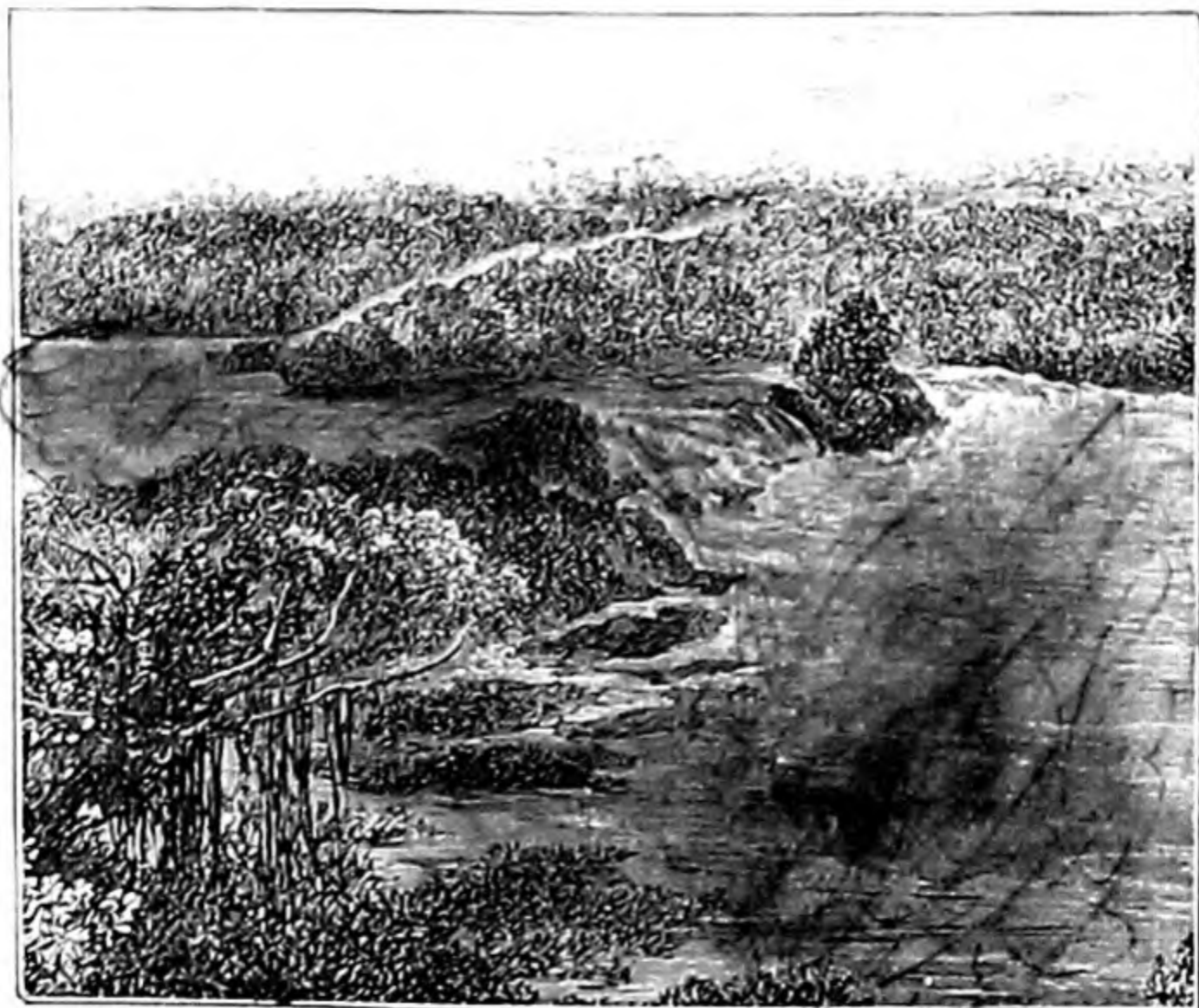
LIVINGSTONE AND STANLEY AT THE MOUTH OF THE RUSIZI

the Nile were to be found south of Tanganyika, he started to explore the region east of Lake Bangweolo; but at Chitambo's village, Ilala, on its southern shore, the intrepid traveller was attacked with dysentery, and on 1st May 1873 he succumbed.

In his 'Last Journals,' the now familiar death-scene is thus recorded. His native followers Susi, Chuma, Chowperé, Matthew, and Muanyaséré, having been alarmed by his attendant Majwara, as to Livingstone's serious condition, went immediately to his hut. 'Passing inside they looked towards the bed. Livingstone was not lying on it, but appeared to be engaged in prayer, and they instinctively drew backwards for the instant. Pointing to him, Majwara said, "When I lay down he was just as he is now, and it is because I find that he does not move that I fear he is dead." They asked the lad how long he had slept. Majwara said he could not tell, but he was sure that it was some considerable time. The men drew nearer. A candle stuck by its own wax to the top of the box shed a light sufficient for them to see his form. Livingstone was kneeling by the side of his bed—his body stretched forward, his head buried in his hands, upon the pillow. For a minute they watched him. He did not stir. There was no sign of breathing. Then one of them (Matthew) advanced softly to him, and placed his hands to his cheeks. It was sufficient—life had been extinct some time, and the body was almost cold. Livingstone was dead. His sad-hearted servants raised him tenderly

up and laid him full length on the bed, then, carefully covering him, they went out into the damp night air to consult together.

His faithful followers embalmed his body, and were conveying it to the coast, when at Unyamwebe, between Ujiji and Zanzibar, they were met by the Relief Expedition under the command of Lieutenant (now Commander) Cameron. The honoured remains of the great traveller were brought to England, and interred with public solemnities in Westminster Abbey.



Ripon Falls—origin of the Victoria Nile.



VAMBÉRY'S TRAVELS IN CENTRAL ASIA.

ARMINIUS VAMBÉRY, a Hungarian gentleman of scientific tastes and fame, commenced, in 1862, one of the most wonderful and perilous journeys ever undertaken by a traveller, the achievements of which he afterwards recorded in a simple and unpretending book. From every point of view, this gentleman's undertaking presents itself in a surprising form. It has been truly, if roughly, said of African travel: 'Money and pluck will do it.' But 'money' would not have done anything for Arminius Vambéry, except assure his prompt discovery and inevitable slavery, if not murder; and 'pluck' was the least of the qualities which he needed—not for a start, not for emergencies, not at intervals—but for his steady, constant, incessant inspiration, and for an indefinite period, during which the pressure of an extreme and deadly peril was never lifted off him for one instant.

His early career was as wonderful as any of his travelling exploits. Arminius Vambéry,

traveller and philologist, was born in Hungary in 1832. His father died when he was only a few months old, leaving his mother very poor. He was apprenticed to a ladies' dressmaker, and then became a tutor. He attended school at St George, near Pressburg, the money he possessed being just sufficient to purchase the necessary books. But seven different families gave him in turn a free meal each day, and he had the cast-off clothes of the wealthier schoolboys. Here he distinguished himself in Latin, and left for another school where he remained for three years, now in the capacity of a servant, and occasionally acting as a tutor; yet in spite of all hardships and drawbacks, he came to be reckoned the best scholar there. As soon as the school term was over, his predilection for roving appeared. He would start with his travelling stick, and without a penny in his pocket visit Vienna, Prague, and other large towns. In 1847, in addition to attending school he devoted himself to private studies, read eagerly all the books of travel within his reach, and became proficient in many languages. He began to cherish a longing for travel in the East, his mastery of the Turkish language, when in his twentieth year, being an aid in this direction; and, helped by a countryman of his own, he got a free passage to the Black Sea. Reaching Constantinople, he visited Trebizond, and started thence on 21st May 1862, on his adventurous travels through Turkey and Persia. His entire luggage consisted of a carpet-bag, which 'contained a couple of shirts, a few books, two carpets, one to be

used as a mattress and the other as a covering, a small kettle, and a tea-cup.

Vambéry's life at Constantinople formed a good preparation for his eastern journey, but his first experiences on horseback, after leaving Trebizond, were the reverse of pleasant. When he arrived at Erzerum on 28th May, he became aware that he was now in the interior of Asia: the walls of the houses, built of stone or mud, were clumsy, and running irregularly in a zigzag fashion. He found the dirt, squalor, and underground dwellings of the natives unbearable, and the smell of the food cooked on fires fed with cattle dung, was loathsome to his European tastes. After crossing the Persian border, the base of Ararat was reached; and he tells us that the inhabitants of the surrounding country all insist that the remains of Noah's Ark may still be seen on its top, while others produce chips from the remains of the ark, and recommend it strongly for pains in the stomach, sore eyes, and other maladies. The country now became more beautiful, and at Khoy, the first place of importance in Persia, he was particularly struck by the life and commotion in the bazaar. The inns were tolerable, and were generally situated in the centre of the bazaar.

At Tebriz, a place with considerable commerce, where he rested two weeks, his faith in oriental cleanliness received a rude shock. In the centre of the yard of the inn where he resided, was placed a basin full of water, originally intended for the performance of ritual lavations. As he was

watching proceedings at the basin, he saw that whilst at one side of the reservoir some were washing their dirty things, soaking skins in the water, or washing babies, there were men opposite gravely performing their religious washings with the same water. One of them, who seemed very thirsty indeed, crouched down and drank of the dark green water. Vambéry's days here passed quickly and pleasantly, owing to his intercourse being partly with Europeans, and not being exclusively confined to Asiatics.

Accompanied by one attendant, he then proceeded on his way to Teheran. On this journey he was joined by a Persian doctor who discoursed about a thousand things in the course of half an hour. His servant led a mule, so heavily laden, that it well-nigh sank beneath the weight of its load. The animal was carrying the fees collected by this physician, which consisted of dried fruit, corn, and such like. The doctor spoke of the wonderful cures he had performed by his amulets and talismans, how he had driven devils out of his patients, made the dumb to speak, the blind to see, and the deaf to hear.

As they neared the capital, his curiosity to see Teheran gave him no rest. Repeatedly he would ask: 'Where is Teheran?' for he could see no indication of it. His companion's stolid answer always remained the same: 'There,' he said, pointing with his finger onward. At last the gray mass of fog which hovered over it caught his eyes, and there was Teheran spread along the sloping base of a

mountain. He got a glimpse first of roofs covered with green glazed tiles, then of gilded cupolas, and at last the panorama of the whole town unrolled itself before him.

Before setting out on the more adventurous part of his journey through Central Asia, he made a journey to Shiraz, returning to Teheran in January 1863. He tells us that the caravan rested from the heat of the day, and continued its way in the dusk of the evening. Supper is eaten about an hour before starting. The men prepare a dish of meat and rice, but the dervish fares better than any one else. No sooner does the caravan arrive than he, without a care, seeks his rest, and when the savoury steam of the evening meal is wafted abroad, he seizes his cocoa-nut vessel, goes round the various groups, and getting a few slices from every one, mixes the whole together, and swallows his contributions with a good appetite. The people of the East have a saying: 'He carries with him nothing, he does not cook, yet he eats; his kitchen is provided by God.'

Vambéry found the silence of the night in the desert most oppressive, for as far as the eye of the traveller could reach he finds no spot to repose it upon. Only here and there might be seen piled up columns of sand, driven about by the wind, and gliding about from place to place like dark spectres. Hearing the sound of bells at midnight, and inquiring the meaning of the sound, he found it was a large caravan in front. They had hardly come within a hundred paces of it, when a

stench as of dead bodies filled the air. The caravan consisted of about forty animals, horses and mules, under the leadership of three Arabs. The backs of the animals were laden with coffins, and in passing near one of the horsemen, Vambéry caught sight of a face which was frightful to look at; the eyes and the nose were concealed by some wraps, and the rest of his lividly pale face looked ghastly by the light of the moon. It was a procession of dead bodies being conveyed to Kerbela; one mule being frequently laden with four coffins. As he looked back on this strange funeral procession, moving onwards in the moonlight, a feeling of awe and terror crept over him.

After his return to Teheran, when he proposed to join the Hadjis, he had to resort to a policy of deception which otherwise he would have hesitated to adopt. He told them that he had long silently, but earnestly, desired to visit Turkestan (Central Asia), not merely to see the only source of Islamite virtue that still remained undefiled, but also to behold the saints of Khiva, Bokhara, and Samarcand. This idea had brought him out of Turkey, and now, after waiting a year in Persia, he thanked God for granting him fellow-travellers such as the Tartars he had around him, with whom he might travel and accomplish his purpose. He was counselled to shave his head, to exchange his Turkish-European costume for one of Bokhara, and as far as possible to dispense with bedclothes, linen, and all such articles of luxury. He thus prevailed on the Court Iman of the Chinese-Mohammedan governor

of Aksu, named Hadji Bilal, and twenty-two other filthy mendicants, to accept him as a brother pilgrim. This association was sealed by a solemn embrace and kiss, in which he says: 'I had, it is true, some feeling of aversion to struggle against. I did not like such close contact with those clothes and bodies impregnated with all kinds of odours.' But we find that soon he became the dirtiest-looking pilgrim of the fraternity.

So this lame man leaves Teheran on March 28th, 1863, one of a caravan of Hadjis, a wandering beggar; and as they advance towards the Elburz Mountains, chanting hymns from the Koran, he glances stealthily backwards at the gilded dome of Shah Abdul Azim, and so bids adieu to the last outpost of civilisation. What an extraordinary company that must have been! The way is beautiful at first, for it lies through Mazendran; but the traveller is troubled in the enjoyment of its loveliness, for the terrible wastes lie beyond, and hunger and thirst are inexorably waiting there, deadly and patient, like the crouching tigers which spring upon the caravan when it camps in the forest. But hunger and thirst will not yield so easily; rusty sword and flickering torch may not frighten them. Man has no spell of cajolery or fear wherewith to conjure the demons of the desert. The caravan nears the Caspian, halts at Karatepe, passes the hill whence Nadir Shah was wont to review the thousands of wild horsemen who flocked to his banners from the remotest recesses of the desert; crosses an arm of the Caspian,

and enters the territory of the Turkomans. From this moment, Vambéry could never lay aside the plenary attributes of his dervish character, and his danger was renewed by every comer who resorted to him in the double capacity of Osmanli and dervish, for blessings, charms, and 'holy breath.'

The caravan journeyed on and on; we may trace its progress on a map, where names grow fewer, and blank spaces wide and frequent; it passes ruins which were once halls and forts, built by Alexander the Great; and Vambéry's danger is very imminent, for he regards them with curiosity, unseemly on the part of a dervish and true believer. But there is even a deadlier element in his danger soon, and he needs all his marvellous self-command to meet and baffle it, for he is forced to witness the cruelties practised by the Turkomans upon the Persian slaves—to witness them with the stolid indifference of a dervish and true believer. To see men and boys fettered, starved, tortured, and insulted, day by day, by the masters who extended frank hospitality to the caravan; never to be able to conquer the useless agonising compassion, the indignant rage, the shuddering disgust, but yet to be forced to conceal it. To live amid such sights and sounds of cruelty and suffering would be terrible enough, even if the physical conditions of existence had not included innumerable hardships and revolting food. Vambéry is delicately reticent on this point; he only plainly indicates camel and horse flesh, and veils the other horrors in hints. So to Etrek, where the hideous

sufferings of the slaves are at their height, and where he is called upon to admire some magnificent feats of horse-stealing.

The dismal waste-lands are near now, and the lameness is beginning to tell, so the traveller journeys in a basket slung by the side of a camel, and balanced on the other side by sacks of flour. Soon there is no trace of any path indicated by foot of camel or hoof of any other animal, and the course is steered by the sun and the pole-star, which the Turkomans call by a name that means 'the iron peg;' and thus, even in this, indicate the nomad life, drawing all its meaning, all its associations from the tent.

The Little Balkan is passed; the heat is pitiless; the march is broken into short intervals; food, the coarsest unleavened bread, to which the Turkomans add sheep-fat, is scarce, and water is becoming priceless, measured by drops, each man carrying his own supply in goat-skins, and guarding it with the fierce vigilant selfishness that is one of the horrible growths of the Great Desert. Through salt-plains, by morasses, into territory where the predatory Tekke wander; the caravan cuts the ancient bed of the Oxus; the Balkan disappears in the blue clouds; the wastes spread before and around them, with interminable hills of sand, on which the sun rises and sets with one invariable yellow glare, and where the dreadful stillness of death reigns unbroken.

What is human life there? Of what value are the patient beasts? The sublime and terrible desert

takes no account of them, and soon the men and the beasts are drawn into a closer fellowship than that of their loneliness and their labour—the sympathy of suffering. For the enemy is upon them—the remorseless thirst of the desert. The goat-skins contain only a little muddy sediment, when the caravan encamps near Yeti Siri, or ‘the Seven Wells’—three remain now, and supply foul, brackish water. Men and beasts drink of it with pitiable delight, and the disguised European alone is moderate, for he knows disease lurks in the fetid draught. On again, and the dread need once more arises—the search recommences. They come to a cave; and out of it a wild man rushes—an awful creature—clad in skins, and debased to the similitude of the lower among the brutes. The disguised European betrays his horror; but his companion is undisturbed, and explains that the wild man is a murderer, and accursed, who has fled into the desert with blood upon his hands. The European shrinks and shudders at the thought of this life, but soon forgets it, for they find no water.

So night fell, and the stars looked out over the Great Desert and the caravan, where men and beasts lay in the agonies of thirst, not so terrible as in the day, for the cold was merciful, but dreadful in the stillness and forced inaction. What were the thoughts of the disguised European, as he lay, in utter feebleness, unable to eat? Did he think of ‘the cup of cold water’ of the Scriptures, and learn to estimate it by an eastern standard, as he saw men refuse the gift, the loan, the sale of a drop of water

during that journey, brother to brother, and father to son? Did the Christian, in the midst of the heathen, learn the full significance of the protection and care of Him who 'leadeth us beside still waters, and restoreth our souls?' Was ever sound so welcome as the low growl of the thunder which broke with the morning, and rolled away over the immeasurable expanse of the desert, heralding, with majestic announcement, the blessed rain?

Thus, with intervals of hunger and thirst, with constant fatigue, and more or less successful begging, and sale of blessings for meat and money, the caravan reaches Khiva. Fresh dangers beset Vambéry—danger of detection, emphasised by the fearful cruelties which he sees practised on slaves and prisoners—danger from climate—and surely, though he never says so, danger from despondency. But all are surmounted by coolness, by readiness, by dauntlessness, which fill us with admiration.

Vambéry had an audience with the Khan of Khiva, whom he described as a worn-out, dull-minded, inhuman tyrant, with lips of a pallid white, and shaky voice. He was seated on a terrace-like platform, a round velvet cushion supporting one arm, and holding a short gold sceptre in his other hand. After going through the salutations prescribed by the Koran, the Khan questioned him as to the objects of his journey, his impressions of the Turkomans, the Great Desert, and Khiva. Our disguised dervish accepted the present of a donkey, and withdrew with fear and trembling to his own cell.

Between Khiva and Bokhara lies the desert again, even more terrible than before, and more interesting, for the nomadic tribes of this region are the Kirghis, who dwell only a few hours in one place; and the Persian slaves, sent to tend their master's sheep, and kept at starvation-point, lest they should attempt to escape. No peril which the journey could bring forth was spared to the caravan. An alarm of robbers forced them to turn aside from the banks of the Oxus, whose waters are the sweetest in the world, into the sandy desert, where the torments of thirst again awaited them, and the rushing mighty wind was ready to sweep down upon them, with its terrible auxiliaries of burning sand and darkness, to envelop them in whirling clouds of dust, and lash them with scorching strokes, and then to rush on, leaving them behind, to exhaustion and fever, in search of the next drift of human waifs destined for its deadly toying.

Through all this suffering and wretchedness the dervish lived, when the camels, unable to endure the pitiless toil and want of their native wastes, died under their loads, amid the white bones of their predecessors—the sole landmarks in that kingdom of despair; when men framed the syllable which means 'water,' with mouths of a ghastly gray colour, and black tongues, and so died, and the dead mouths could not be closed, or the shrivelled lips drawn over the sharp crusted teeth. But an hour came when his companions had to lift him from the camel, and lay him down

upon the ground, as just about to die: he ceased to think, and fell into a deep sleep. His sufferings are thus described: 'We reached fountains that had not yet been visited this year by the shepherds; the water, undrinkable by man, still refreshed our beasts. We were ourselves all very ill, like men half dead, without any animation but that which proceeded from the now well-grounded hope that we should all be saved! I was no longer able to dismount without assistance; they laid me upon the ground; a fearful fire seemed to burn my entrails; my headache reduced me almost to a state of stupefaction. My pen is too feeble to furnish even a slight sketch of the martyrdom that thirst occasions; I think that no death can be more painful. Although I have found myself able to nerve myself to face all other perils, here I felt quite broken. I thought, indeed, that I had reached the end of my life. Towards midnight we started; I fell asleep, and on awaking in the morning found myself in a mud hut, surrounded by people with long beards; in these I immediately recognised children of "Iran." They said to me: "Shuma ki Hadji nistid" (You, certainly, are no Hadji). I had no strength to reply. They at first gave me something warm to drink, and a little afterwards some sour milk mixed with water and salt, called here "Airan:" that gave me strength and set me up again.'

His great tact and learning served him well in passing through Bokhara, which was so perilous to any European traveller. He was not only

pronounced a good Mussulman, but at the same time a learned Mollah; 'to have any suspicion of him is a mortal sin.' The Emir, or ruler, he describes as a severe, but well-disposed man, with a pleasing countenance, fine black eyes, and a thin beard. On the occasion of a public audience, Vambéry presented himself to the Emir under the conduct of his friends. To his surprise, on entering, his party was stopped and informed that his majesty wished to see him apart from his companions. This was a blow to them, as they all thought something had gone wrong.

'I followed the Mehrem, and, after being kept an hour waiting, I was introduced into a room which I had on a previous occasion visited, and there I now saw the Emir sitting on a mattress or ottoman of red cloth, surrounded by writings and books. With great presence of mind, I recited a short Sura, with the usual prayer for the welfare of the Sovereign, and after the Amen, to which he himself responded, I took my seat, without permission, quite close to his royal person. The boldness of my proceedings—quite, however, in accordance with the character which I assumed—seemed not displeasing to him. I had long forgotten the art of blushing, and so was able to sustain the look which he now directed full in my face, with the intention, probably, of disconcerting me.

"Hadji, thou comest, I hear, from Roum, to visit the tombs of Baha-ed-din, and the saints of Turk-estan."

"Yes, Takhsir (sire); but also to quicken myself

by the contemplation of thy sacred beauty" (Djemali mubarek), according to the forms of conversation usual on these occasions.

"Strange! and thou hast then no other motive in coming hither from so distant a land?"

"No, Takhsir (sire), it has always been my warmest desire to behold the noble Bokhara, and the enchanting Samarcand, upon whose sacred soil, as was remarked by Sheikh Djelal, one should rather walk on one's head than on one's feet. But I have, besides, no other business in life, and have long been moving about everywhere as a Djihangeshte" (world pilgrim).

"What, thou, with thy lame foot, a Djihangeshte! This is really astonishing."

"I would be thy victim!" (an expression equivalent to "pardon me.") "Sire, thy glorious ancestor (peace be with him!) had certainly the same infirmity, and he was even Djihanghir" (conqueror of the world).

'This reply was agreeable to the Emir, who now put questions to me respecting my journey, and the impression made upon me by Bokhara and Samarcand. My observations, which I incessantly strove to ornament with Persian sentences and verses from the Koran, produced a good effect upon him, for he is himself a Mollah, and tolerably well acquainted with Arabic. He directed that I should be presented with a serpay (dress) and thirty tenghe, and dismissed me with the command that I should visit him a second time in Bokhara. When I had received the princely present,

I hurried, like a man possessed by a devil, back to my friends, who were delighted at my good fortune. I heard (and there is no improbability in the account) that Rahmet Bi had drawn up his report concerning me in ambiguous terms, and that the Emir had consequently conceived suspicions. My triumph was entirely owing to the flexibility of my tongue (which is really impudent enough).'

The sanctity of a man who had thus seen the Emir could not be questioned; and besides, when reciting the sacred poems, the traveller used to place before him a cup of water, into which he spat at the end of each poem; this mixture was afterwards sold to the best bidder as a wonder-working medicine. At Herat, however, the young prince-governor half-rose, and pointing to him with his finger, called out: 'I swear you are an Englishman.' Vambéry solemnly replied: 'He who takes, even in sport, the believer for an unbeliever, is himself an unbeliever.'

Arminius Vambéry journeyed from Bokhara to Samarcand, and from Samarcand to Herat; he returned to Teheran in perfect safety, after having endured the extreme of poverty and privation in the Afghan territory. He was back in Europe in May 1864, and on his arrival at Pesth was recommended to go to England, as her wide-spread political sympathies would secure a warm welcome for the narrative of his Asian travels. Ten days elapsed before he had secured the necessary fifteen pounds to take him to London. When he arrived there he was looked upon with suspicion by some at first, as a Persian vagabond who had learned English in

India. The sight of a European who had wandered about the interior of Asia as a holy beggar without a penny in his pocket, secured him a good audience on his first public appearance. In a few weeks his name was familiar over the United Kingdom; and invitations poured in upon him to dinner parties. In three months, from pencilled notes hidden under his beggar's garment, he pieced together and published the record of his travels.

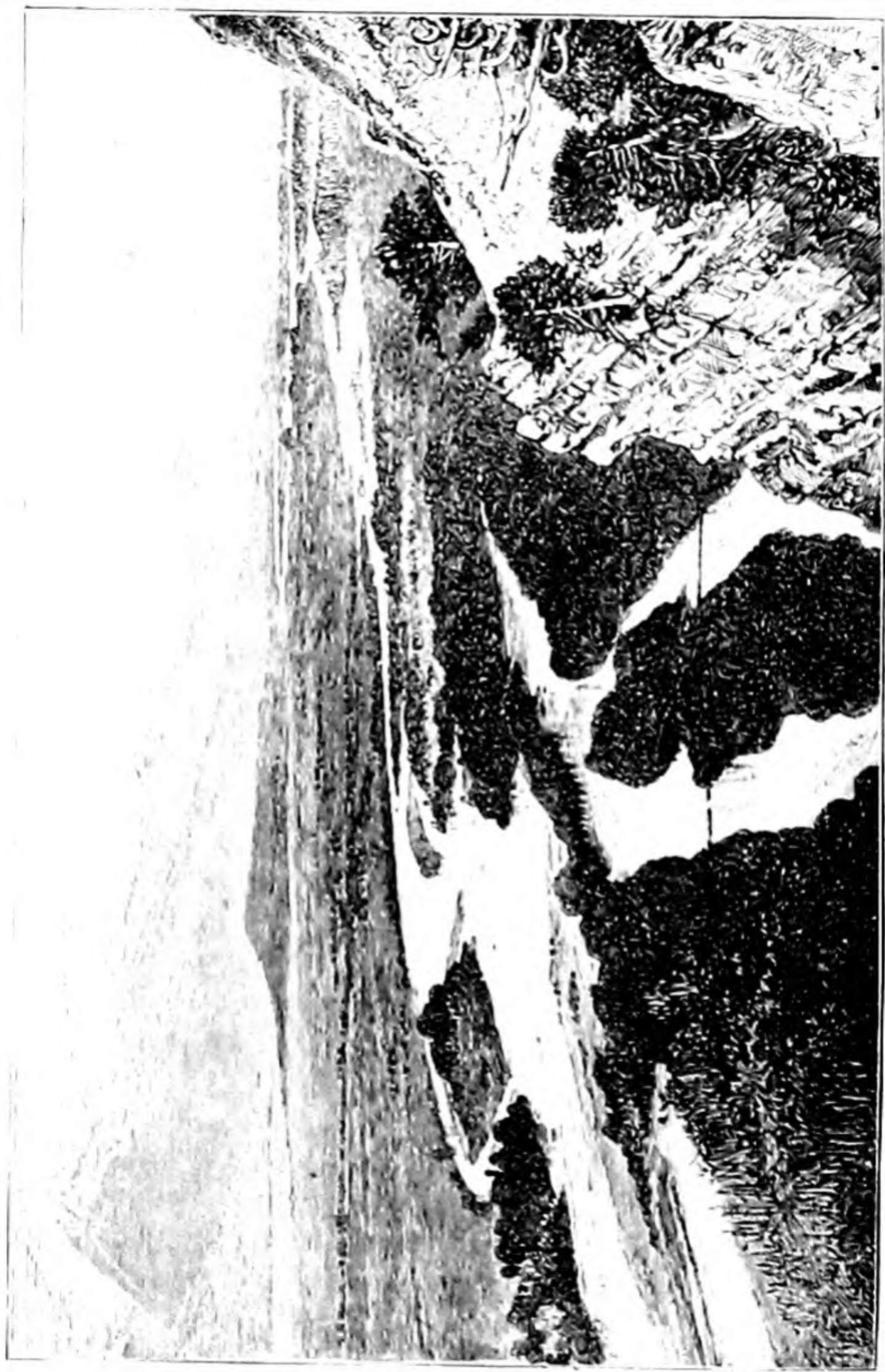
In addition to his *Travels and Adventures in Central Asia*, published at London in 1864, Professor Vambéry has also written many other works. As a reward for his adventurous career, he was appointed professor of Oriental languages at the university of Pesth. His latest visit to England was in 1885, when he lectured in various parts of the country.





WONDERS OF THE YELLOWSTONE REGION.

WITHIN recent years a wonderful portion of the earth's surface, of previously hidden and indeed almost unsuspected beauty, has been opened up, by the persevering efforts of a body of explorers, selected from among men of science and adventure in the United States of America. The Yellowstone Region in the Rocky Mountains lies at the north-west corner of the territory of Wyoming, and is bounded on the north by Montana and on the west by Idaho. It is claimed by its explorers as superior to all the other wonders of the American continent; and it does, in reality, fulfil the most extravagant of the suppositions to which its concealed marvels gave rise, since the existence of a lake, which they held to be the source of the great Yellowstone River, was established by the celebrated explorers, Captains Clarke and Lewis, in 1806. For more than sixty years these marvels were vaguely hinted at and surmised; rumours of burning plains, spouting springs, thickets of petrified sage brush, great lakes, and other natural wonders, came down



YELLOWSTONE VALLEY.

from the unknown regions up the Yellowstone. But the mystery is a mystery no longer, and is now open for all the world to see. The official records of the United States government and of many travellers tell us what the brave men saw who first penetrated to the valley, on whose south side are the Wind River Mountains, a snow-clad barrier which no white man has ever crossed; on whose eastern side is the Snowy Mountain Range, and a grand cluster of volcanic peaks; on whose north side are the Gallatin Range, and the vast parallel ridges through which the great tributaries of the Missouri pass northward.

Little was known of this wonderful region until 1864, when Captain W. W. de Lacy and party penetrated the western edge of it. In 1870, some of the officials and leading citizens of the rich and beautiful state of Montana organised the expedition which, accompanied by a small escort of United States cavalry, started from Fort Ellis, the frontier military post of Montana, and in thirty days explored the cañons of the Yellowstone and the shores of Yellowstone Lake. Crossing the mountains to the headwaters of the Madison, they visited the geyser regions of Firehole River, and ascended that stream to its junction with the Madison, along whose valley they returned to civilisation, 'confident that they had seen the greatest wonders on the continent, and convinced that there was not on the globe another region where, within the same limits, nature had crowded so much of grandeur and majesty with so much of novelty and wonder.'

This does not seem to be an exaggerated estimate of the scenes which revealed themselves to this and a second expedition which set out in the following year, led by Colonel Barlow, the chief engineer, and under special orders from General Sheridan. Starting, as the former expedition had done, from Fort Ellis, they ascended Gardiner's River, and found themselves in a region of hot springs, the deposits from which cover the hillsides with quaint samples of natural architecture, forming a fitting introduction to the grander marvels of the valley. The deposit is snowy white, and has the form of a frozen cascade. The springs now in active operation cover an area of one square mile, while three or four miles are occupied by the remains of springs which have ceased to flow. These springs had been overlooked by the former exploring party, so that they were actually first discovered in 1871, and they have already become the resort of many invalids, who speak highly of the virtues of the waters. They are at a height of six thousand feet above the sea; and south of them rises a domelike mountain two thousand feet higher, whose summit commands a view of fifty miles in every direction.

From this summit the party descended into the Yellowstone Valley, by a path which combines every variety of beauty, boldness, fertility, grandeur, and gloom; and includes an elevated plateau thirty miles in extent, dotted with groves of pine and aspen, with numerous beautiful little lakes scattered throughout its extent, and many springs,

which flow down the slopes, and are lost in the vast volume of the Yellowstone. In their passage over this plateau the party came to a terrific rift—a preparation for the incomparable awfulness of the Grand Cañon, which lay before them—a rift two thousand feet in depth, with the river rolling in its deeps, over volcanic boulders, in some places; and in others, forming fathomless still pools. Small cascades tumble at different points from the rocky walls, and the river appears from the lofty summits a mere ribbon of foam in the immeasurable distance. ‘Standing on the brink of the chasm,’ writes one of the party, ‘the heavy roaring of the imprisoned river comes to the ear only in a sort of hollow, hungry growl, scarcely audible from the depths. Everything beneath has a weird and deceptive appearance. The water does not look like water, but like oil. Numerous fish-hawks are seen busily plying their vocation, sailing high above the waters, and yet a thousand feet below the spectator. In the clefts of the rocks, hundreds of feet down, bald eagles have their eyries, from which one can see them swooping still farther into the depths, to rob the ospreys of their hard-earned trout.’ A grand, gloomy, terrible place; peopled with fantastic ideas, full of shadows and of turmoil. At the head of this cañon is the beautiful cataract which the explorers called the Tower Falls, which, though its sheer fall is four hundred feet, is so hidden away in the dim light of overshadowing rocks and woods, its very voice hushed to a low murmur, that men might pass

within half a mile of it, and not dream of its existence.

But not until the Grand Cañon is reached are the wonder and the dread of the region to be realised. Two of the explorers accomplished a descent into its fearful abyss at a point where the chasm is 1190 feet deep. Their ascent was most perilous, but the spectacle revealed to them was worth the risk. On entering the ravine, they came to hot springs of sulphur, sulphate of copper, alum, steam-jets in endless variety, some of them of very peculiar form. One of them, that of sulphur, had built up a tall spire, standing out from the slope of the wall like an enormous horn, with hot water trickling down its sides. They descended the channel of the creek for three miles, and were now 1500 feet below the brink, and after four hours of hard toil, reached the bottom of the gulf, and the margin of the Yellowstone, where they found the water warm, and tasting of alum and sulphur. The river-margin is lined with all kinds of chemical springs, some depositing craters of calcareous rock, others muddy, black, blue, or reddish water. 'The internal heat,' says Lieutenant Doane, 'renders the atmosphere oppressive, though a strong breeze drives through the cañon. A frying sound comes constantly to the ear, mingled with the rush of the current. We had come down the ravine at least four miles, and looking upward, the fearful wall appeared to reach the sky. It was 3 P.M. and stars could be distinctly seen, so much of the sunlight was cut off from entering the chasm. Tall pines

on the extreme verge appeared the height of two or three feet. The total depth is from 1500 to nearly 2000 feet. There are perhaps other cañons longer and deeper than this one, but surely none combining grandeur and immensity with such peculiarity of formation and profusion of volcanic or chemical phenomena.'

The geologist of the party, Dr Hayden, thus reads the history of this tremendous chasm: 'Ages ago, this whole region was the basin of an immense lake. Then it became a centre of volcanic activity; a vast quantity of lava was erupted, which, cooling under water, took the form of basalt; volumes of volcanic ash and rock fragments were thrown out of the craters from time to time, forming breccia as it sunk through the water and mingled with the deposits from siliceous springs. Over this were spread the later deposits from the waters of the old lake. In time the country was slowly elevated, and the lake was drained away. The easily eroded breccia along the river-channel was cut out deeper and deeper as the ages passed; while springs, and creeks, and the falling rain combined to carve the sides of the cañon into the fantastic forms they now present, by wearing away the softer rock, and leaving the hard basalt and the firmer hot spring deposits standing in massive columns and Gothic pinnacles. The basis material of the old hot spring deposits in silica, originally white as snow, are now stained by mineral waters with every shade of red and yellow—from scarlet to rose colour, from bright

sulphur to the daintiest tint of cream. When the light falls on these blended tints, the Grand Cañon presents a more enchanting and bewildering variety of forms and colours than human artist ever conceived.

‘No language can do justice to the wonderful grandeur and beauty of the cañon below the lower falls, the very nearly vertical walls slightly sloping down to the water’s edge on either side, so that from the summit the river appears like a thread of silver foaming over its rocky bottom; the variegated colours of the sides—yellow, red, brown, white—all intermixed and shading into each other; the Gothic columns of every form standing out from the sides of the walls with greater variety and more striking colours than ever adorned a work of human art. The margins of the cañon on either side are beautifully fringed with pines. . . . The decomposition and the colours of the rocks must have been due largely to hot water from the springs, which has percolated all through, giving to them their present variegated and unique appearance. Standing near the margin of the lower falls, and looking down the cañon, which looks like an immense chasm or cleft in the basalt, with its sides one thousand five hundred to one thousand eight hundred feet high, and decorated with the most brilliant colours that the human eye ever saw, with the rocks weathered into an almost unlimited variety of forms, with here and there a pine sending its roots into the clefts on the sides, as if struggling with a sort of uncertain success to maintain an existence—the whole presents a picture that it would be difficult

to surpass in nature. Mr Thomas Moran, a celebrated artist, and noted for his skill as a colourist, exclaimed, with a kind of regretful enthusiasm, that these beautiful tints were beyond the reach of human art. It is not the depth alone that gives such an impression of grandeur to the mind, but it is also the picturesque forms and colouring. After the waters of the Yellowstone roll over the upper descent, they flow with great rapidity over the apparently flat, rocky bottom, which spreads out to nearly double its width above the falls, and continues thus until near the lower falls, when the channel again contracts, and the waters seem, as it were, to gather themselves into one compact mass, and plunge over the descent of three hundred and fifty feet in detached drops of foam as white as snow, some of the larger globules of water shooting down like the contents of an exploded rocket. It is a sight far more beautiful than, though not so grand or impressive as, that of Niagara Falls. A heavy mist always rises from the water at the foot of the falls, so dense that one cannot approach within two or three hundred feet, and even then the clothes will be drenched in a few moments. Upon the yellow, nearly vertical wall of the west side, the mist mostly falls; and for three hundred feet from the bottom the wall is covered with a thick matting of mosses, sedges, grasses, and other vegetation of the most vivid green, which have sent their small roots into the softened rocks, and are nourished by the ever-ascending spray.'

Awful as it is to look upwards from the depths of the Grand Cañon, it is infinitely more so to gaze downwards from its terrific verge. From the silent horror of the effort, the strong brave men of the exploring party shrank in agony, crawling backward from the edge in undisguised terror, and hardly able to realise their safety.

The grandeur of the cañon is at once heightened and diversified by the magnitude and beauty of its Upper and Lower Falls; the latter are especially striking. The sheet of water falls sheer three hundred and fifty feet (with a like height of terrible wall rising above it), in one unbroken symmetrical expanse, covered with white foam, while rainbows are formed in the spray from almost every point of view; and the steep rocks near, constantly wet with rising mist, are covered with bright green vegetation. Between these beautiful falls and the lake, which is the central gem of that wonderful collection of long-hidden treasures, lies a marvellous region, filled with boiling springs and craters, with two hills, three hundred feet high, formed wholly of the sinter thrown from the adjacent springs; and at the base of one of them is a cavern whose mouth is seven feet in diameter, from whence a dense jet of sulphurous vapour explodes with a regular report like a high-pressure engine. A few yards off is a boiling spring, seventy feet long by forty wide, the water of which is in unceasing agitation; and in another direction is a boiling alum spring surrounded with beautiful crystals. No wonder that the first beholders of

these things called the various points by names of infernal significance.

There are now no true geysers in this group, but in ancient times there were very powerful ones. The steam-vents on the side and at the foot of these hills represent the dying stages of this once most active group; but the real geyser region is just over the margin of the Yellowstone Basin, on the Firehole River. Here, in a valley twelve miles long and three wide, is an exhibition of boiling and spouting springs, on a scale so stupendous that, if all the corresponding phenomena of the rest of the world could be brought into an equal area, the display could not be equalled. The boiling springs, all in active eruption, with craters from three to forty feet high, are scattered along both banks of the river; and as the expedition hurried along, anxious to reach the settlements of Madison Valley, which formed the outposts of civilisation on the opposite side, they came in sight of an immense volume of clear, sparkling water, projected into the air to the height of one hundred and twenty-five feet. 'Geysers, geysers!' they shouted in concert; and so they were, this one standing as a sentinel at the mouth of the marvel-filled valley. It spouted at regular intervals nine times during the explorers' stay, each discharge lasted from fifteen to twenty minutes. By a succession of impulses, it seemed to hold the column up steadily in the air for the regular space, the great mass falling directly back into the basin, and flowing over the edges and down the sides in large

streams. When the action ceases, the water recedes beyond sight, and nothing is heard but the occasional escape of steam until another exhibition occurs. The description of one of the geysers, of which there are hundreds, suffices for all as to general features, but the difference in their dimensions is considerable, and the mounds and projecting rims are of various, though always extraordinary beauty. Of one, which they called the Castle Geyser, Dr Hayden writes: 'It is the most imposing formation in the valley, and receives its name from its resemblance to the ruins of an old fortress. The deposited silica has crystallised in immense globular masses, like cauliflowers, or spongiform corals, apparently formed about a nucleus at right angles to the centre. The mound is forty, and the chimney twenty feet high, and the lower portion rises in steps formed of thin laminæ of silica, an inch or two thick. The base of the crater is three hundred and twenty-five feet in circumference, and the turret is one hundred and twenty-five. At the base of the turret lies a large petrified pine-log, covered with a brilliant incrustation several inches thick.'

The largest and principal geysers have been named as follows: 'Old Faithful,' which regularly every hour sends its streams of boiling water two hundred feet upward, the spectacle continuing from three to five minutes. When the action ceases, the water recedes out of sight, and nothing but the occasional hiss of steam is heard until the time approaches for another eruption.

On the opposite side of the river is the 'Bee-hive'

geyser, which once in twenty-four hours throws a column of water, three feet in diameter, to a height of from one hundred to two hundred and twenty feet.

Next, one comes up to the 'Giantess,' which, however, only once in fourteen days shows her power. She then shoots up a stream two hundred and fifty feet into the air, with strong eruption, lasting twenty minutes, and heard at a great distance. From here one visits the 'Lion,' the 'Lioness' and her two cubs, the 'Saw Mill,' the 'Grand,' the 'Comet,' the 'Giant,' the 'Grotto,' the 'Splendid,' and the 'Castle' geysers, with others of smaller size. Of the last-named group the 'Giant' and the 'Grand' are the mightiest, throwing streams to a height of two hundred feet, the former playing an hour, and the latter twenty minutes, each with strong ebullitions. The craters of these geysers differ considerably in form. Many are even with the ground, and have either narrower or wider throats. Others have elevated craters, which in numerous instances exhibit the most peculiar shapes; as, for instance, the 'Castle,' already described, which bears a striking similarity to a ruined stronghold, while that of the 'Grotto' resembles a hermit's cell. In addition to these geysers, hot sulphur springs are here in large numbers, exhibiting their beautiful play of colours, as well as their wonderful work of varied crystallisations. One sees here, indeed, the waters in constant play in every stage, from boiling and seething to eruption in great columns of two hundred and fifty feet in height, which appear as

perfect fountains, while the effect is vastly enhanced by the clouds of hot vapour which float upward far beyond the jets of water.

The Grand Geyser is the finest object of the kind yet discovered in the world; and the variety of these wonderful things is astonishing. Their number is not less than fifteen hundred, but scarcely any two are alike. The explorers' suspicion that many quiet-looking springs were slumbering geysers, was justified by a magnificent surprise. Their camp was roused in the early morning by a fearful hissing sound, and the rush of falling water; and, on looking out, they saw a small crater, three feet in height, with an opening twenty-six inches in diameter, which had hardly excited any notice, playing a perpendicular jet to the height of two hundred and nineteen feet, amid great clouds of steam, and causing the ground to tremble as the heavy body of water fell with tremendous splashes upon the shelly strata below. Huge masses of rock were torn from their places, and borne away into the river-channel. It played steadily for ten minutes.

The excitement and pleasure of exploring such scenes as those presented by the Upper and Lower Geyser Basins of the Firehole River cannot be exaggerated in imagination. Every moment brought some fresh wonder to light, every hour chronicled a surprise, frequently mingled with awe. The mighty ranges of mountains, the tremendous ravines, the awful evidences of the rule of the Fire King (his power slumbering now, indeed, but still asserted in the geysers and the mud volcanoes, and the impress

of his terrible passage, in the dead ages, on the face of nature everywhere around); the beautiful rivers, the far-spreading forests, with their noble denizens—elk, buffalo, and deer; the pine-crowned promontories, and the fair table-lands, which unite to form the exquisite picture of this remote region, 6000 feet above the sea-level, and dating from the Pliocene age, is but the setting of the gem which sparkles on the summit of it all, 7427 feet above the ocean—the peerless Yellowstone Lake, the ‘Crown of the Continent.’ When the explorers had seen all, it was this they had come to see; this was the prize, the treasure, the crowning reward—this loveliest sheet of water, which had lain, unseen by any save Indian eyes, and but rarely seen even by them, under the blue heavens from the morning of Time, mirroring their beauties in its expanse of fifteen miles by twenty-two.

Overpowering, indeed, must have been the effect upon the explorers when they emerged from the geyser region, the cañons and the falls, upon the beautiful lake, of which the engineer-in-chief writes: ‘Secluded amid the loftiest peaks of the Rocky Mountains, possessing strange peculiarities of form and beauty, this watery solitude is one of the most attractive natural objects in the world. Its southern shore, indented with long narrow inlets, not unlike the frequent fiords of Iceland, bears testimony to the awful upheaval and tumultuous force of the elements which resulted in its creation. The long pine-crowned promontories, stretching into it from the base of the hills, lend new and charming features to

an aquatic scene full of novelty and splendour. Islands of emerald hue dot its surface, and a margin of sparkling sand forms its jewelled setting. The winds, compressed in their passage through the mountain gorges, lash it into a sea as terrible as the fretted ocean, covering it with foam.' But it lay before the explorers, when they saw it first, calm and unruffled, the most beautiful object which their toilsome journey had revealed. No fish save trout live in its waters, but they are thronged with water-fowl; great fleets of white swans and pelicans sail over its bosom, and crowd its islets. The great river flows away from it in a deep and easy channel, a quarter of a mile wide; its superficial area is three hundred square miles, and in elevation it has but one rival, the South American lake, Titicaca.

Such is, in brief outline, the Yellowstone Region. In 1872 Congress earned the thanks of the civilised world by setting it apart as a 'public park or pleasuring ground for the benefit and enjoyment of the people.' There is now hotel accommodation for the traveller, and roads have been made to the chief objects of interest. The President of the United States visited the Yellowstone National Park, as it is now called, in 1883. A branch line of the Northern Pacific Railway runs to Cinnibar, about six miles from the Park.





ADVENTURES OF AUDUBON THE NATURALIST.

JOHN JAMES AUDUBON, the naturalist of America, was the son of a Frenchman, his mother being a lady of Spanish extraction. He inherited from his father the fine estate of Mill Grove, in Louisiana, where he was born in 1780, and where his earliest recollections 'were associated with lying among the flowers of that fertile land sheltered by the orange-trees, and watching the movements of the mocking-bird.' Very early in life, he was removed to France, and began to receive a thoroughly national education. He was taught to play adroitly upon the violin, flute, flageolet, and guitar, and became a proficient in dancing; while for drawing-master he had the famous David, to whom he owed his earliest lessons in tracing objects of natural history. Even as a child, his chief delight was to make excursions into the country about Nantes, from which he usually returned at eve, laden with the nest and eggs of birds. Indeed, before he had reached man-

hood, he had completed as an amateur, and when quite another profession was in prospect for him, nearly two hundred sketches of the Birds of France. His father destined him in vain, however, to follow the French Eagles under Napoleon, and at last consented to his embracing commercial pursuits; he was accordingly despatched to America to superintend the family estate there.

At Mill Grove, 'hunting, fishing, and drawing occupied,' he writes, 'my every moment; cares I knew not, and cared nothing for them.' His happy employments were only diversified by falling in love; he offered his hand to the daughter of a neighbour, Mr Bakewell, an Englishman, and in course of time was accepted. Though, without doubt, an attractive wooer, he must have appeared, in that outlandish region, a very strange one, for 'it was one of my fancies,' confesses he, with *naïveté*, 'to be ridiculously fond of dress; to hunt in black satin breeches, to wear pumps when shooting, and to dress in the finest ruffled shirts I could obtain from France.' Yet this apparently effeminate dandy was not only a most excellent shot and true backwoodsman, but had even then proposed to himself that work on American Ornithology, which Cuvier pronounced to be in its completed form 'the most gigantic bibliographical enterprise ever undertaken by a single individual.'

From his own account of his mode of life at this time, it would appear to have resembled that of Shelley. 'I ate no butcher-meat, lived chiefly

on fruits, vegetables, and fish, and never drank a glass of spirits or wine until my wedding-day. To this I attribute my continual good health, endurance, and an iron constitution. So strong was the habit, that I disliked going to dinner-parties, where people were expected to indulge in eating and drinking, and where often there was not a single dish to my taste. I cared nothing for sumptuous entertainments. Pies, puddings, eggs, and milk or cream was the food I liked best; and many a time was the dairy of Mrs Thomas, the tenant's wife of Mill Grove, robbed of the cream intended to make butter for the Philadelphia market. All this while I was fair and rosy as a girl, strong as any one of my age and sex could be, and as active and agile as a buck. And why, have I often thought, should I not have kept to this delicious mode of living?

Of his skill as a marksman, it need only be said that once when he was skating with his future brother-in-law down the Perkiominy Creek, he made a wager with him that he would put a bullet through his companion's cap when thrown into the air by the latter, while he himself was passing at full speed. The wager was taken up, and Audubon won it. The produce of this skill made his house at Mill Grove resemble a museum. 'The chimneypiece of his room was covered with stuffed squirrels, racoons, and opossums; and the shelves around were likewise crowded with specimens, among which were fishes, frogs, snakes, lizards, and other reptiles. Besides these stuffed varieties,

many paintings were arranged upon the walls chiefly of birds. The walls, too, were festooned with all sorts of birds' eggs, carefully blown out, and strung upon a thread.'

These palmy days, when work was not only pleasant to him, as it always continued to be, but the enjoyments of wealth were also within his reach, were nearly cut short by a curious incident, which certainly manifested that this young naturalist was not born to be drowned. 'Having engaged in some duck-shooting up the creek with young Bakewell and some young friends, it was found that the ice was full of dangerous air-holes. On our upward journey, it was easy to avoid accident; but the return trip was attended with an accident which had nearly closed my career; indeed, my escape was one of the inconceivable miracles that occasionally rescue a doomed man from his fate. The trip was extended too far, and night and darkness had set in long before we reached home. I led the party through the dusk with a white handkerchief made fast to a stick, and we proceeded like a flock of geese going to their feeding-ground. Watching for air-holes, I generally avoided them; but increasing our speed, I suddenly plunged into one, was carried for some distance by the stream under the ice, and stunned and choking, I was forced up through another air-hole farther down the stream. I clutched hold of the ice, and arrested my downward progress, until my companions arrived to help me.'

It was three months before the hero of this fright-

ful adventure became himself again; but after that time he favours us with the following pen-and-ink sketch of his own personal appearance, which seems to have suffered no blemish: 'I measured five feet ten and a half inches, was of a fair mien, and quite a handsome figure; large, dark, and rather sunken eyes, light-coloured eyebrows, aquiline nose, and a fine set of teeth; hair, fine texture and luxuriant, divided and passing down behind each ear in luxuriant ringlets as far as the shoulders.' We cannot in this world expect everything, and it is scarcely a discredit to the possessor of such great natural advantages that he was not a good man of business, and indeed was so obviously ill adapted for the commercial calling, that we find him posting a letter containing eight thousand dollars without taking the precaution of sealing it. When his father died, and matters fell entirely into his own hands, he began to suffer in pocket from this cause; and when his own speculations failed, he took to himself a partner, who completed his ruin. There were to be no more satin breeches or ruffled shirts for Audubon; and unfortunately it was not himself alone who had to suffer; a wife and children now shared his misfortunes. These straits of the great naturalist are the more to be deplored, since in his case he did not need the spur of poverty to urge him on, while, on the other hand, they undoubtedly placed him more than once in a humiliating position.

We see this man of genius coming, only too often, hat in hand (and with no great independence

of manner either), to 'request the patronage' of very inferior folks indeed. Audubon must have been about forty years of age when poverty first fell upon him. In 1822 (when he was two-and-forty), he writes: 'I entered Louisville with but thirteen dollars in my pocket. I found my friends very cool, and my position very insecure. My son Victor I managed to get into the counting-house of a friend, and I engaged to paint the interior of a steamer.' A poor prospect enough; for already his wife had to live apart from him, since, for economical reasons, she had undertaken to be 'companion to a lady;' while he had himself, for two or three years, subsisted as a portrait-draughtsman, on very low wages indeed, though he possessed some skill, and succeeded so well in portraying the features of the dead, that a clergyman's child was exhumed, in order that he might take a likeness of the corpse. But the simple fact is, that even had his opportunities been greater, Audubon could never have prospered through any ordinary channels. As his biographer, Mr Robert Buchanan, well remarks, 'he was ever a wanderer at heart, and showed the weaker side of his nature whenever he shaped himself to civilised society.' He was a born gipsy, and ought never to have married at all; and it is painful to read of the continuous separation from his family—who seem to have dearly loved him—which poverty compelled.

Once in the woods, his natural high spirits assert themselves; and even in the cities, which his necessity causes him to visit, the voice of nature

—‘a flock of wild ducks overhead in London, a gathering of pigeons on the trees of Paris’—always makes him glad. There was never a more thorough naturalist by nature, if we may so speak, than Audubon. Even the eccentric Rafinesque, whose luggage was but a bundle of plants, and who could scarcely be induced to wash himself, was not his equal as an explorer.

Constant familiarity with the wilder aspects of nature seems, in some cases, to have somewhat blunted Audubon’s perceptions of them, or at least in describing them he relates what is humorous rather than what is sublime. He was staying with a physician in a log-hut on the banks of the Mississippi, when he experienced his first earthquake. ‘The earth waved like a field of corn before the breeze; the birds left their perches, and flew about not knowing whither; and the doctor, recollecting the danger of his gallipots, ran to his office, to prevent their dancing off the shelves to the floor. Never for a moment did he think of closing the doors, but, spreading his arms, jumped about the front of the cases, pushing back here and there the falling jars, but with so little success, that before the shock was over he had lost nearly all he possessed.’

In his description of a hurricane, he is more successful. He had been fishing for ‘dew-fish’—creatures that weigh a hundred pounds apiece—off the coast of Florida, and was returning to land, when signs of the storm began to appear. The sun grew obscure with clouds, along which rolled

vivid flashes of lightning, and a low murmuring noise possessed the air. 'We were not more than a cable's length from the shore, when with imperative voice the pilot calmly said to us: "Sit quite still, gentlemen, for I should not like to lose you overboard just now; the boat can't upset, my word for that, if you will but sit still: here we have it!" Persons who have never witnessed a hurricane, such as not unfrequently desolates the sultry climates of the south, can scarcely form an idea of their terrific grandeur. One would think that, not content with laying waste all on land, it must needs sweep the waters of the shallows quite dry to quench its thirst. No respite for a moment does it afford to the objects within the reach of its furious current. Like the scythe of the destroying angel, it cuts everything by the roots, as it were, with the careless ease of the experienced mower. Each of its revolving sweeps collects a heap that might be likened to the full sheaf which the husbandman flings by his side. On it goes, with a wildness and fury that are indescribable; and when at last its frightful blasts have ceased, nature, weeping and disconsolate, is left bereaved of her beautiful offspring.

'In instances, even a full century is required before, with all her powerful energies, she can repair her loss. The planter has not only lost his mansion, his crops, and his flocks, but he has to clear his lands anew, covered and entangled as they are with the trunks and branches of trees, that are everywhere strewn. The bark overtaken by

the storm is cast on the lee-shore, and if any are left to witness the fatal results, they are the "wreckers" alone, who, with inward delight, gaze upon the melancholy spectacle. Our light bark shivered like a leaf the instant the blast reached her sides. We thought she had gone over; but the next instant she was on the shore, and now, in contemplation of the sublime and awful storm, I gazed around me. The waters drifted like snow; the tough mangroves hid their tops amid their roots, and the loud roaring of the waves driven among them blended with the howl of the tempest. It was not rain that fell; the masses of water flew in a horizontal direction, and where a part of my body was exposed, I felt as if a smart blow had been given me on it.'

For some time he dwelt in the heart of the Great Pine Swamp, in Pennsylvania, accumulating specimens of birds, and was apparently never happier than beneath its solemn shade. Florida, too, was one of his most favourite hunting-grounds, with its long 'barrens,' diversified by 'hummocks' of live-oak. As the traveller approaches these dark oases, 'the air feels cooler and more salubrious, the song of numerous birds delights his ear, the herbage assumes a more luxurious appearance, the flowers become larger and brighter, and a grateful fragrance is diffused around. . . . Overhead, festoons of innumerable vines, jessamines, and bignonias link each tree with those around it, their slender stems being interlaced as if in mutual affection.' The existence of these 'hummocks'—often of vast extent

—has evoked quite a peculiar race of beings—the woodcutters of Florida. They go to work without knowing whether the immediate object of their exertions will repay them or not. Even when the mighty trunk is prostrate, their labours may have been in vain. ‘They cut at both extremities, and sound the whole of the bark, to enable them to judge if the tree has been attacked by white rot. If such has unfortunately been the case, there, for a century or more, this huge log will remain, till it gradually crumbles; but if not, and if it is free of injury or “wind-shakes,” while there is no appearance of the sap having already ascended, and its pores are altogether sound, they proceed to take its measurement.’ Many of these woodcutters inhabit lonely cabins, with their wives and children, and do not work in company. In this case, it is not uncommon for them to be Lost in the Woods; every tree in these vast hummocks is the counterpart of its fellow; the grass, where it has not been burned, is so tall that a man of ordinary stature cannot see over it, so that one must move with caution, lest the ill-defined trail should be deviated from. Moreover, at the season which best suits this sort of labour, heavy fogs come on, so as to limit the view to a few yards.

One of the ‘live-oakers’ detailed to Audubon a terrible personal experience of this sort. He describes his horror when, upon the rising of the fog, he did not recognise a single object about him; how the gray trees spread their giant boughs over him, and the rank grass extended on all sides, and

not a living creature crossed his path. 'The sun was now setting with a fiery aspect, and by degrees it sunk in its full circular form, as if giving warning of a sultry to-morrow. Myriads of insects, delighted at its departure, now filled the air on buzzing wings. Each piping frog arose from the muddy pool in which it had concealed itself; the squirrel retired to its hole, the crow to its roost; and, far above, the harsh croaking voice of the heron announced that, full of anxiety, it was wending its way to the miry interior of some distant swamp. Now the woods began to resound to the shrill cries of the owl and the breeze, as it swept among the columnar stems of the forest trees, laden with heavy and chilling dew. Alas! no moon, with her silvery light, shone on the dreary scene, and the *lost one*, wearied and vexed, laid himself down on the damp ground.' He wandered aimlessly about throughout the next day, and when night again approached, fatigue, anxiety, and hunger had almost driven him frantic. He knew that he must have walked more than fifty miles, and yet he had met with no drop of water to allay his burning thirst; yet, such was his hunger, that when, by God's special grace, as it seemed, he met a tortoise, which he knew if followed undisturbed, would lead him to water, he had not patience, but killed the creature with his axe, and satisfied both hunger and thirst at once—for a few hours. He also met with a racoon; but except for these, he had no food save cabbage-trees, frogs, and snakes. At last, after seven weeks of wandering, his clothes in

tatters, his bright axe dimmed with rust, and his feeble frame but a skeleton covered with parchment, he laid himself down to die: in which miserable condition he was providentially discovered, eight-and-thirty miles from his own cabin.

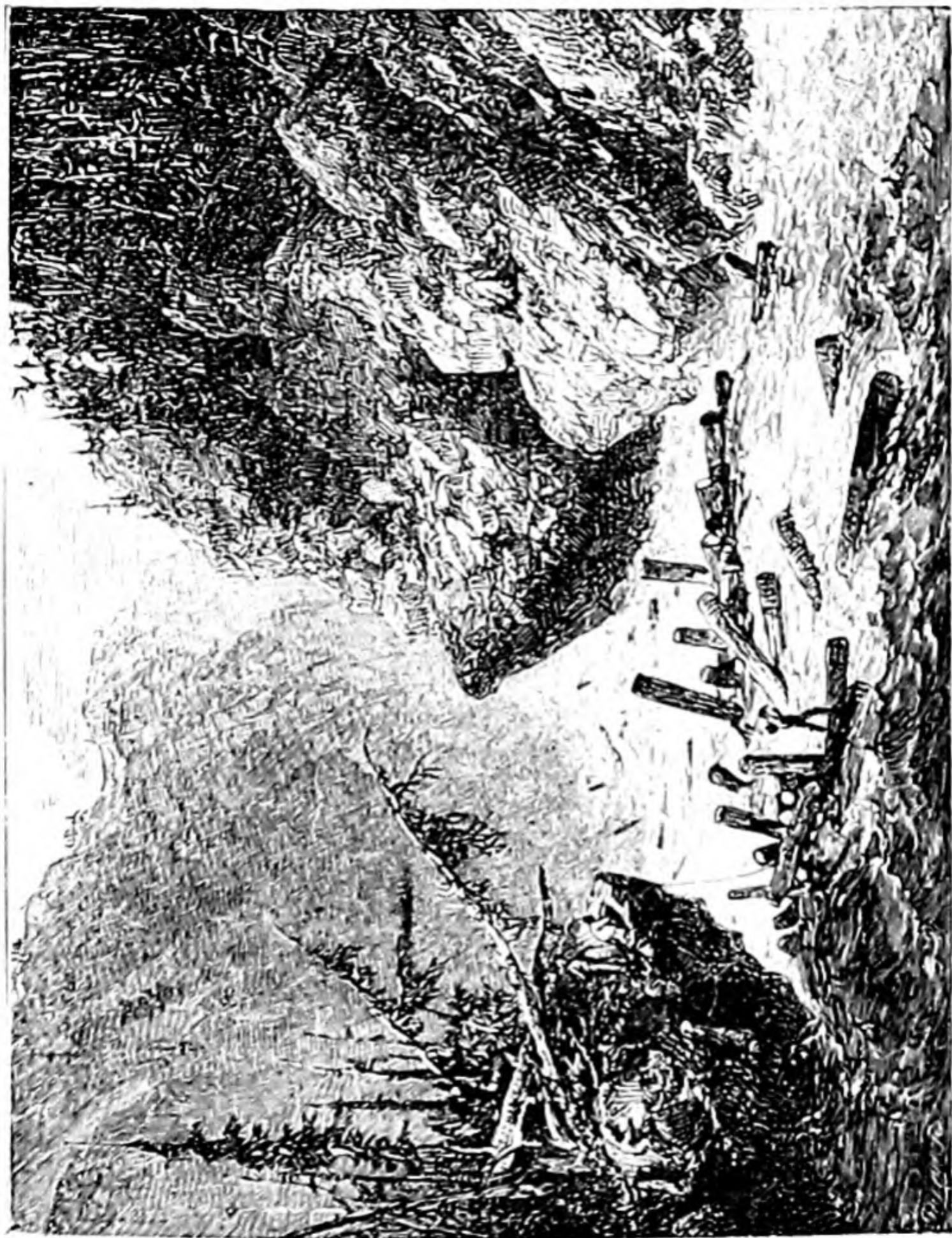
Another interesting class of people among whom Audubon was thrown, in pursuit of science, was the lumberers of Maine, who at the approach of winter leave their homes, and march into the pine-forests with their oxen, to work and dwell for months. Their bodies swathed in flannel, their heads and brows covered by the skin of the racoon, their legs encased in moose-skin, and their feet thrust in broad moccasins, they stand hacking from dawn to eve at the majestic pines. These the oxen haul to the nearest frozen stream, till the ice becomes covered with the accumulating mass, when, their task thus completed, they wait for the breaking up of winter. The logs then swiftly reach the dams on the swollen streams, and the task of cutting them into boards continues throughout the summer. But sometimes the course of the stream is interrupted by narrow gorges. 'One of the latter is situated about half a mile above the mill-dam, and is so rocky and rugged in the bottom and sides as to preclude the possibility of the trees passing along it at low water, while, as I conceived, it would have given no slight labour to an army of woodsmen or millers to move the thousands of large logs that had accumulated in it. They lay piled in confused heaps to a great height along an extent of several hundred yards, and

were in some places so close as to have formed a kind of dam. Above the gorge there is a large natural reservoir, in which the head-waters of the creek settle, while only a small portion of these ripple through the gorge below, during the latter weeks of summer and in early autumn, when their streams are at the lowest. At the neck of this basin the lumberers raised a temporary barrier with the refuse of their sawn logs. The boards were planted nearly upright, and supported at their tops by a strong tree, extended from side to side of the creek, which might there be about forty feet in breadth. It was prevented from giving way under the pressure of the rising waters by having strong abutments of wood laid against its centre, while the ends of these abutments were secured by wedges, which could be knocked off when necessary.

'The temporary dam was now finished. Little or no water escaped through the barrier, and that in the creek above it rose in the course of three weeks to its top, which was about ten feet high, forming a sheet that extended upwards fully a mile from the dam. My family were invited early one morning to go and witness the extraordinary effect which would be produced by the breaking down of the barrier, and we all accompanied the lumberers to the place. Two of the men, on reaching it, threw off their jackets, tied handkerchiefs round their heads, and fastened to their bodies a long rope, the end of which was held by three or four others, who stood ready to drag their companions ashore,

in case of dangers or accident. The two operators, each bearing an axe, walked along the abutments, and, at a given signal, knocked out the wedges. A second blow from each sent off the abutments themselves, and the men, leaping with extreme dexterity from one cross log to another, sprung to the shore with almost the quickness of thought.

‘Scarcely had they effected their escape from the frightful peril that threatened them, when the mass of waters burst forth with a horrible uproar. All eyes were bent towards the huge heaps of logs in the gorge below. The tumultuous burst of the waters instantly swept away every object that opposed their progress, and rushed in foaming waves among the timber that everywhere blocked up the passage. Presently a slow heavy motion was perceived in the mass of logs; one might have imagined that some mighty monster lay convulsively writhing beneath them, struggling, with a fearful energy, to extricate himself from the crushing weight. As the waters rose, this movement increased; the mass of timber extended in all directions, appearing to become more and more entangled each moment; the logs bounced against each other, thrusting aside, submerging or raising into the air, those with which they came in contact. It seemed as if they were waging a war of destruction, such as the ancient authors describe the efforts of the Titans, the foaming of whose wrath might, to the eye of the painter, have been represented by the angry curlings of the waters; while the tremulous and rapid motions of the logs,



LUMBERMEN CLEARING A BARRIER.

which at times reared themselves almost perpendicularly, might by the poet have been taken for the shakings of the confounded and discomfited giants. Now the rushing element filled up the gorge to the brim. The logs, once under way, rolled, reared, tossed, and tumbled amid the foam, as they were carried along. Many of the smaller trees broke across; from others, great splinters were sent up, and all were in some degree seamed and scarred. Then, in tumultuous majesty, swept along the mangled wreck: the current being now increased to such a pitch, that the logs, as they were dashed against the rocky shores, resounded like the report of distant artillery, or the angry rumblings of the thunder.'

Audubon tells us further about Swan Lake, with its 'thousands of large and heavy swans,' whose skins go to the ladies of Europe, and where, 'though wild geese and ducks are so numerous, no one condescends to give them a shot;' of the rock off Labrador, apparently covered with snow two or three feet deep, which turns out to be white gannets — 'birds in such a mass and of such a size as I never saw before, all calmly seated on their eggs with their heads to windward,' but who, when on the wing, cause a thick foggy atmosphere, like snowflakes, all about the rock; and lastly, of the brutal 'egggers' of Labrador, who recklessly crush the chick within its shell as they trample over the nests of the unhappy birds, so that they spoil as much as they rob.

Let us briefly summarise the history of the

publication of that colossal work, in the compilation of which Audubon spent his life. When not shooting birds, or drawing them, he is always like them upon the wing, crossing to England, to France, and back again in search of that very rare bird indeed—a Subscriber for his projected work on the 'Birds of America.' It was eventually completed in 87 parts, containing 448 plates of birds beautifully coloured, published at £182, 14s. The size of the work was elephant folio, and the engravings represented the birds of America, as well as the objects by which they were surrounded, of *their natural size*. They were portrayed at their ordinary avocations, and placed on branches of trees decorated with foliage, blossoms, fruits, &c., while even the insects, reptiles, and fishes that constitute their food were accurately introduced. The plates were coloured in the most careful manner from Audubon's originals. 'Probably no other undertaking of Audubon's life illustrates the indomitable character of the man more fully than this. He was in a strange country, with no friends but those he had made within a few months, and not ready money enough in hand to bring out the first number proposed, and yet he entered confidently on this undertaking, which was to cost over a hundred thousand dollars, and with no pledge of help, but on the other hand discouragements on all sides, and from his best friends, of the hopelessness of such an undertaking.'

Audubon found himself at the verge of this great undertaking in London, with but one sovereign

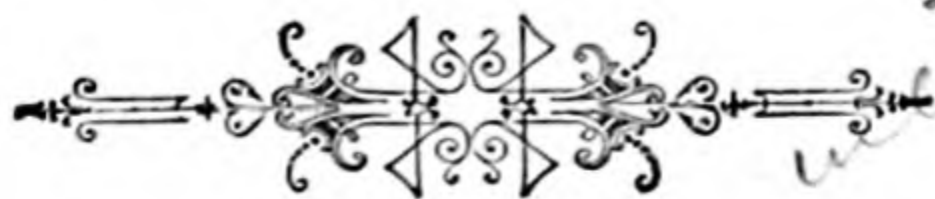
left in his pocket, and without a single friend to whom he could apply for more; yet he extricated himself from his difficulties by rising at four in the morning, working hard all day (with his pencil), and disposing of his works at a price which would scarcely have been thought remuneration by a common labourer. 'To give an idea of his actual difficulties during the publication of his first volume, it may be sufficient to say, that in the four years required to bring it out, no less than fifty of his subscribers, representing the sum of fifty-six thousand dollars, abandoned him.' But he was as 'pushing' as any bagman, and it must be owned did not lose a chance through any excess of diffidence. His vanity was something ludicrous. At Edinburgh he was exceedingly well received. This he attributes to two causes: first, to his personal beauty; secondly, to his acknowledged genius. 'I have taken to dressing again,' says he, 'and now dress twice a day, and wear silk stockings and pumps. I wear my hair as long as usual. *I believe it does as much for me as my paintings.*' Some judicious friends, however, persuaded him at last to appear a little more like other people, and his giving way to their request is thus narrated in his diary, with a great rim of black around the words, as though it were an Obituary: '*Edinburgh, March 19, 1827.*—This day my hair was sacrificed, and the will of God usurped by the wishes of Man. As the barber rapidly clipped my locks, it reminded me of the horrible times of the French Revolution, when the same operation was performed upon all

the victims murdered by the guillotine. My heart sank low.

JOHN J. AUDUBON.

When George IV. sent to say he would take a copy of his work—'on the usual terms, not as kings generally do, but as a gentleman'—it was no wonder that he went into an ecstasy; for there was solid pudding in that act of patronage. In France, our author fared very ill. The price of his projected volumes terrified the Parisians, and he got only two subscribers, the Prince d'Essling and the Duke of Orleans, after weeks of importunity: whereas in Manchester alone he had secured thirty names. But, finally, the mammoth undertaking was introduced to the world, and made a profound sensation. Audubon had his reward at last, not only in material dollars, but in what he valued more, the admiration of his fellow-creatures.

The naturalist died on the 7th of January 1851. His faults, which were on the surface of his character, were soon forgotten; what he has done of good will long remain. His own great work is his monument, and renders epitaphs unnecessary. We may well say, in farewell, with his biographer: 'Audubon was a man of genius, with the courage of a lion, and the simplicity of a child.'



The end all

interest



BURTON'S PILGRIMAGE TO MEDINA AND MECCA.

OF the thousands who have been fascinated with those wonderful Arabian tales that have at some time of our lives delighted us all, comparatively few, we believe have ever fully comprehended the significance of the term haji. We have all read of Haji Baba and of Haji Saad, never dreaming but that these names were as common and as meaningless in the days of the Caliph Haroun Alraschid, as John Smith or Thomas Jones are in the reign of Queen Victoria. How little did we think, when

Adown the Tigris we were borne,
By Bagdad's shrines of fretted gold,
High-walled gardens, green and old—

that the term haji involved more hardship to the devout Mussulman than ever knight of high degree was called upon to suffer for the spurs he prized. We question if either knight or baron ever won by his endurance the satisfaction which a son of the Prophet derives from the reflection that he has visited the shrines of Medina and Mecca, and by so doing has swept off his arrears of iniquity and won the title of haji. It was with no purpose of this kind, however, either penitential or ambitious, that, in 1853, Lieutenant (now Captain) Richard F. Burton performed the pilgrimage to which the true believer looks forward as an epoch in his existence.

Ere we start with him for Medina and Mecca, let us say a word about his personal career. Richard F. Burton, one of the most daring and successful of modern travellers, was born in 1821 in Norfolk. He is the son of Colonel J. N. Burton, and was educated in France and England. In 1842, he entered the Indian army, and served many years in Sindh. While in this employment, he exhibited a remarkable facility in acquiring the Eastern languages, and a still more remarkable dexterity in imitating the appearance and habits of the natives of India. In 1851, he published his first important work—*Sindh, and the Races that inhabit the Valley of the Indus*—full of graphic description, and interesting to all readers. Burton had acquired a very familiar acquaintance with Hindustani, Persian, and Moulteni. He had devoted special attention to Arabic, and had made such progress as to

be able to speak it like a native. Possessed of these qualifications, he resolved to explore Arabia in the disguise of an Afghan pilgrim; and after a visit to England, he set out on his journey. Political commotions prevented him from traversing the whole country, as he intended; but his *Personal Narrative of a Pilgrimage to El Medina and Mecca* (1855), records one of the most daring feats on record. A perpetual strain on the ingenuity was necessary to keep up his assumed character, most difficult in moments of fatigue, and in the midst of shrewd and observant fellow-travellers.

The next journey undertaken by Burton was into the country of the Somalis, in Eastern Africa. It proved less successful than was anticipated; Burton's companion, Lieutenant Stroyan, having been killed, and Burton himself wounded. He succeeded, however, in reaching Harar, an important town in Eastern Africa, not before visited by any European, and in penetrating a vast and populous region scarcely known to geographers. The journey led to a still more notable series of expeditions—those to the country of the Upper Nile. Towards the end of 1856, Burton set out in company with Lieutenant Speke, also of the Indian army, to ascertain the truth of the reports collected by the missionaries, that a vast sea existed in the heart of the continent. The journey is one of the most memorable of our time. It led to the discovery and exploration of the great lake of Tanganyika, and the opening up of the eastern part of the continent. Burton was rewarded with the medal

of the Geographical Society. His health had been affected by his African journeys, and he sought to recover it by a journey in North America, from which he brought the first reliable account of the Mormons. In 1861, Burton was appointed consul at Fernando Po, on the west coast of Africa, and while holding this appointment, he visited the Cameroons Mountains, and went on a mission to the king of Dahomey. The incidents of both journeys have been recorded in two of his most interesting works. He was subsequently consul at Santos in Brazil, and at Damascus; and on the death of Mr Charles Lever in 1872, he succeeded the novelist in the post of British consul at Trieste. Since then Captain Burton has been variously occupied in travel and literary work.

Burton's pilgrimage to Medina and Mecca, already referred to, and of which we here propose to give some account, was undertaken at the instance of the Geographical Society. The distinguished traveller set about his journey in a way altogether novel. In most barbarous and semi-barbarous countries, the European is subjected to inconveniences and dangers which comparatively few are able to endure and surmount. A passage through the Holy Land of the Moslem is only safe to the born believer or the convert, and even the latter is regarded with an amount of suspicion, and watched with a degree of attention, fatal to any such project as that with which Burton set out. Nature and his long residence in India had, however, done much for him; for his Oriental cast of countenance, and his

familiarity with various dialects of Arabia and Persia, gave him immense advantages over the ordinary Eastern traveller. Still, he had no distinct plan as to the disguise he would assume before leaving England in 1853; and it was only at the suggestion of a brother-officer that, at the last hour, he furbished up a dress which hung in his wardrobe, and went on board ship as a Persian prince. This character he kept up with perfect ease until he arrived in Alexandria, and was there subjected to the annoyances connected with the passport-system.

Foreseeing that his supposed rank would involve him in many difficulties which might be avoided, he obtained permission to visit any part of Egypt as an Indo-British subject named Abdullah, a dervish and a doctor. In this capacity he set out for Cairo, where, by good-fortune, he became acquainted with a curious little man, a Russian by birth, who, in his wanderings, had completely divested himself of all his national peculiarities, and had even arrived at the point of believing in Allah and his Prophet, but in nothing else. Haji Wali—such was the name of this singular personage—and our pilgrim became fast friends; and the latter profited not a little by the shrewdness and extensive experience of the former. It was at the suggestion of this friend that Burton resolved again to change his character, convinced that it was by no means a safe one to travel in, and aware of the hardships to which he would be subjected if he failed to obtain the confidence of the people

with whom he had determined to make himself acquainted. It was after long deliberation about the choice of nations, and after maturely considering all the advantages and disadvantages connected with the various nationalities under the influence of the faith of Islam, that Burton became a Pathan—born of Afghan parents, and sent out to wander in early youth. To do credit to his parentage and birthplace, it was essential that he should be able to speak in the Persian, the Hindustani, and the Arabic languages, in each of which happily he could converse freely.

Thus provided with parentage, languages, and a profession, Burton considered himself so far safe. In order, however, thoroughly to keep up the character he had assumed, he endeavoured, while at Cairo, to get into regular practice as a physician. In his capacity of an Indian physician, he could easily resort to charms and spells when ordinary medical appliances failed, and he thus obtained considerable repute in Cairo. His practice became so extensive, in fact, that it was likely to be a serious obstacle in the way of the preparations for his journey through the Holy Land. He, accordingly, declined many of the applications made to him, and gave himself privately to the study of Mohammedan theology, and the ritual observances of an orthodox believer. In this work he was occasionally aided by Haji Wali; while a *shayk*, or teacher, assisted him to master the doctrines of the Shafei school—that branch of Mohammedanism being the least rigorous, and most

closely resembling the Persian faith of Shiah, with which he was already in some degree acquainted. The pilgrim's time was not wholly occupied by study, however; he took occasion to extend his knowledge of Eastern manners, by mixing as often as he could with his fellow-lodgers in the caravan-sary. This caused a great deal of scandal; and when it was known that the sage Pathan physician and student had been hobnobbing with an Albanian, the former was fain to get away from Cairo as fast as possible.

The preparations of the adventurous pilgrim for entering El Hejaz—the Holy Land—were not complete even when he had gone through the laborious and tedious processes to which we have referred. It was not enough that his disguise was such as to baffle the keenest scrutiny, and his proficiency in all the formulas of the Mohammedan faith beyond all question; he had to divest himself of everything that might lead to a suspicion of his being a European. Things which might seem to have been indispensable, knives, scissors, weights, &c. of infidel manufacture, were left behind. Our would-be haji was compelled, by the Oriental horror of hog's bristles, to substitute a piece of wood, chewed at the end, for a shaving-brush. A drinking-cup could not be taken, lest it might have been previously defiled by the lips of an unbeliever; and, consequently, a goat-skin water-bag formed the canteen part of the meagre outfit.

Warned by the example of a traveller who had preceded him, and who had been well-nigh murdered

by the Bedouins, the pilgrim did not burden himself with sketch-books. For bedding and furniture, he provided himself with a coarse Persian rug, which, besides being couch, served as chair, table, and oratory; a blanket for cold weather, and a sheet destined to do duty as a tent, in consort with a huge bright-yellow cotton umbrella. His purse and papers were concealed in a stout leather-belt strapped round his body under the dress; while his medicine-chest—a pea-green box, capable of standing falls from a camel twice a day—completed his outfit. He carried with him a few Arabic books of a standard order; judging that, under the pretence of study, he might now and then be able to take notes or sketches on the margin unperceived by his fellow-travellers. Thus equipped, he hired two camels for the sum of ten shillings each, and started for a desert ride of eighty-four miles to Suez.

In his journey across the desert, Burton was so fortunate as to be joined by several persons belonging to El Medina, who were on their return home, and with whom he proceeded in a pilgrim-ship to Yembo, on the Red Sea, experiencing all the discomforts incident to a peculiar mode of travelling with rather a peculiar company of fellow-passengers. Yembo is the port of El Medina, and from it the Haj takes its course for the Holy Cities. It was on the 18th July 1853, that Burton, forming one of a party of twelve, passed through the gate of this little seaport town, and proceeded due east across a burning desert. Now it was that the

greatest hardships and sufferings of the journey were to be endured. The country was 'fantastic in its desolation—a mass of huge hills, barren plains, and desert vales.' The road wound over broken rocky ground, in which even the hardy camel-grass would not grow. Not a bird or a beast could be seen; and it was only now and then that the pilgrims came to spots where, to the intolerable heat of the sun, and the stony ground, was added the plague of locusts and flies. The journey was a painfully tedious one, Burton's fellow-travellers being much given to wrangling and sleeping. Almost all the settlements which Burton saw in his progress through El Hejaz were in a ruinous state—the effect, he thought, of the old Wahhabee and Egyptian wars, and of Turkish misrule. In Arabia, the depopulation of a district cannot be remedied by an influx of strangers, for the land belongs in perpetuity to the survivors of the tribe which has been driven out, and trespass is visited with a bloody revenge. To add to the discomforts of the march to El Medina, reports that celebrated desert-robbers were in the vicinity of the caravan led to frequent halts and great anxiety, it being supposed that there was no way of escaping from those desperadoes but by sitting still.

At length, however, the pilgrims passed through 'the blessed valley,' which Burton found to be very different from the descriptions given of it by Arab poets; and in half an hour after, they came to a huge flight of steps, roughly cut in a long broad line of black scoriaceous basalt. This was holy ground;

for at the top, a full view of the Holy City of the Moslems was obtained. Jaded, hungry, and disgusted as he was, Burton was here called upon to sustain his assumed character, by squatting upon the ground and saluting the city with blessings and prayers to Allah and the Prophet. This part of the orthodox Mohammedan ritual attended to, the caravan entered El Medina, having taken more than eight days to travel over little more than 130 miles. And here Burton's endeavours to emulate his companions in their devout enthusiasm were so successful as to enable him, unperceived, to make a rough sketch of the city as he rode slowly along behind the others. Remarkable even from the spot at which the first view of the place is obtained, are the four tall substantial towers, and the flashing green dome under which rest the remains of Mohammed. This spot, the Masjid-el-Nabawi, or the Prophet's Mosque, was, of course, the object of Burton's special interest; and after a short stay at the house of one of his travelling-companions, during which he performed the great ablution, and went through all the usual preparatory ceremonies, he arrayed himself in white clothes, and was ready to make the *ziyarat*, or visitation.

There is a tradition that Mohammed gave his followers to understand, that one prayer in his mosque at El Medina would be more efficacious than a thousand in other places, save only the Masjid-el-Haram at Mecca. The latter is the second of the three places regarded by the Moslem as the most sacred places in the world; the third being

the Masjid-el-Aksa of Jerusalem, the peculiar place of Solomon. It is the duty of every true believer, after he has made the visitation, to pray five times a day in the Prophet's Mosque as long as he remains in El Medina. Burton does not inform us whether he proved himself to be a faithful son of Islam to the extent required; but he made the best use of his eyes in his first visit to the mosque. As a matter of course, it did not come up to his expectations: scarcely any celebrated place realises the ideas previously formed of it. The 'sacred edifice at El Medina, however, is seen under many disadvantages, for the approach is choked by ignoble buildings, some actually touching the holy inclosure. There is no outer front, no general aspect of the mosque. The more I looked at it,' continues Burton, 'the more it suggested the resemblance of a museum of second-rate art—a curiosity-shop, full of ornaments that are not accessories, and decorated with pauper splendour.' The reader of Burckhardt—who gained admission into El Medina, but was not able to correct all the mistakes that prevailed respecting the Holy Places—need not, of course, be told that the Prophet's Mosque has undergone great changes, having been thrown down, burned, and repeatedly pillaged. The votive-offerings of the great caliphs added greatly to its splendour; but since it was last burned, it has never regained its ancient magnificence.

The person who for the first time approaches the Prophet's Sepulchre as a religious devotee is called a *záir*, and he must provide himself with a *muzaw-*

wir, or conductor. Burton's host was his conductor; and, accompanied by him, he proceeded to perambulate the building slowly, and with his hands in the position of prayer—that is, placed a little below and on the left of the waist, the palm of the right covering the back of the left. During the ceremony, he lost no opportunity of noting the position of the more remarkable features of the place; and he was subsequently enabled to make a plan of the *Haram*, or Mosque, marking the course taken by pilgrim-visitors, the situation of the Prophet's Well, and his Pulpit; El Rawyah, or the Garden; the window through which the Angel Gabriel descended with revelations to Mohammed; the Weeping Pillar; the Pillar of Repentance; the Pillar of the Fugitives; and Ayesha's Pillar.

The peculiarly Holy Place no one is permitted to enter; and, consequently, Burton could only describe its external parts and its general features, so far as he was enabled to judge of them from the plan of the building. This place is inclosed within the Prophet's Garden, which is quite an artificial affair, laid with flowered carpets, decorated with green tiles, gaudy arabesques, and candelabra of cut-crystal, the work of a London glass-cutter. At night, when lit up by many lamps hung from the roof, this part of the mosque has, altogether, a strange and rather impressive appearance; but Burton considered it tawdry and dull by day. The *Hujrah*, or chamber of Ayesha, the Prophet's wife, and the room in which he died, is a large

irregular square, in the south-east corner of the building, and separated on all sides from the mosque by a broad passage; in this is the mausoleum, inclosed within a double railing. A dark passage separates the outer railing from the inner one; and behind the latter hangs the curtain that screens from mortal gaze the tombs of Mohammed, Abubekir, and Omar, and the vacant place which is said to be reserved for Isa bin Maryam, or the son of Mary, after his second advent. To a window—the most sacred of three—Burton was allowed to approach; but he was closely watched, lest, by dropping anything through the aperture, he might pollute the sacred place within. Straining his eyes, he saw a set of hangings with three inscriptions, informing readers that within were laid Allah's Prophet and the first two caliphs. The exact place of Mohammed's tomb is distinguished by a large rosary of pearls and a star, described by the faithful as composed of diamonds and pearls—'a jewel of the jewels of paradise;' but presenting to Burton's eyes the appearance of an old-fashioned flat cut-crystal stopper for a decanter.

Great differences of opinion have always prevailed respecting the tomb of Mohammed. Some have asserted that when the wind blows back the curtain, the form of a block of marble may be seen; others maintain that the three tombs are within a building of black stones, that they are deeply sunk in the ground, and that the Prophet's coffin is a box of ebony covered with silver. But the fact is, no one knows anything of the matter. When the curtain

requires to be renewed, the work is done in the night by men whose eyes are bound, and who would not dare to turn their faces towards the spot on which no mortal is allowed to gaze. Stories are of course told of extraordinary spectacles having been witnessed by those who were compelled, in the discharge of duty, to approach the sacred place; and it is believed that the original mausoleum has survived all the burning and pillaging which the mosque has sustained. A celebrated Moslem writer, El Saman-hudi, quoted by Burckhardt, professed to have visited the place in the year of the Hegira 911, after it had been destroyed by lightning, and maintains that, although the position of the Prophet's tomb had then been discovered with difficulty, nothing was to be seen within it.

The establishment attached to the Holy Places of El Medina includes functionaries of all kinds, each anxious, of course, to extract as much as he can from pilgrims. The 'visitation' of the mosque is by no means an easy matter; for in addition to the aghas, who set upon the devotee as he issues from the gates, and demand their fees in rather an arrogant tone, there are beggars of all kinds sitting upon the mosaic pavements, dodging about the passages, and seizing him at every turn. The women are particularly importunate at Fatimah's Tomb; and Burton had to pay double what he intended before he could shake himself clear of lame, blind, ulcerated, and dirty believers.

'The Prophet's City,' Medinet-el-Nabi, or as it is usually called for brevity, Medina, 'the City,' is in the

province of Hedjaz, about one hundred miles east of the Red Sea. It is the second of the three sacred cities of the Mohammedans, Mecca being the first, and Jerusalem the third. The district around Medina, twelve miles in circumference, is a sanctuary where life—except that of the invader, the infidel, and the sacrilegious—is sacred, and where all immorality is strictly forbidden. There are mosques, identified with Mohammed and his immediate successors; wells from which the Prophet drank, or which he sweetened by expectoration; and gardens which he loved, in the vicinity—all of which the *záir* or pilgrim is expected to visit. It is believed that the souls of the faithful sit in spiritual converse, and require to be warned of the approach of mortals by the snapping of padlocks and the shaking of chains; while at El Bakia, a hundred thousand saints, with faces like full-moons, are expected to arise when Mohammed reappears on the earth. All those places were entered by our pilgrim with his right foot foremost, and at each of them he prayed with true Islamitish fervour.

There are few public buildings in El Medina; the houses, which are generally well built, being flat-roofed, and double-storied—the best of them situated in courts or gardens, where fountains and date-trees gladden the eyes. Burton estimated the population to be about 16,000, composed of offshoots from every Mohammedan nation, pilgrims frequently remaining, finding employment, and resolving to die there, with a view to the spiritual advantages arising from interment in the vicinity of the Prophet's

resting-place. The citizens are a favoured race, exempt from taxation, and doing little. The trade is chiefly in grain, and there is an active business carried on with the Bedouins in tobacco, dried fruits, and sweetmeats. Fruit-trees are extensively cultivated, and abound in great variety. The date-trees of El Medina have long been celebrated throughout the East, and Burton considers them worthy of their celebrity. There are sixty or seventy different kinds, the finest yielding fruit about two inches long, which is packed in skins or flat boxes, and sent as presents to the remoter parts of the Moslem world. The fruit of the sacred date-trees that grow in the Garden of Fatimah, is sent to the Sultan and the chiefs of Islam every year; and one species is eaten, but not sold. Dates seem to be a staple article of diet with the Madani. They luxuriate in them, as an Irishman does in potatoes. The fruit is prepared in a variety of ways, and medicine is made from it. Cookery in El Medina seems to have borrowed something from all parts of the world; but one of the greatest luxuries of the people is clarified butter. If a man cannot take a large dish of this with some fried meat swimming in it, his stomach is supposed to be in a bad state, and medicine is at once recommended. Provisions of all kinds are dear, and in the visitation season the price of everything is doubled. Yet the citizens, though always in debt to some one, contrive to live well, and to enjoy themselves, so far as the limitations of their faith will allow.

While the male portion of the Madani are engaged

in discussing politics, or looking after their interests in connection with the mosque and the pilgrims who visit it, or enjoying that rest which Orientals alone seem thoroughly to appreciate, the females employ themselves in domestic matters—chiefly, Burton thinks, in scolding ‘Hasniah’ and ‘Zaaferan,’ their female slaves. Black slave-girls perform the duties of maids-of-all-work, and they cost from fifty to a hundred dollars, according to their accomplishments. Dress, of course, as in other parts of the world, occupies a good deal of the attention of the ladies of El Medina. They dress handsomely in a bodice, a wide white skirt with sleeves of enormous length, and the *tarwal*, or pantaloons, which are not wide like those worn in some other parts of the East, but so tight as to show the form. The women all dye the soles of their feet and the palms of their hands black; and they delight in ornaments and perfumes.

The Madani are a travelling people. They live chiefly by travel and travellers. Each male inhabitant takes his turn in applying to the Mudir-el-Haram, or principal officer of the mosque, for a paper, styled a honorarium, which entitles him to a sum of money at Constantinople according to his rank. Those whose turn it is to remain at home, look forward with much interest, of course, to the arrival of the caravans with which their begging relatives return. While Burton was at El Medina, the great caravan which comes from Damascus every year arrived in the outskirts of the town, and created an immense sensation. It had been

anxiously expected, for it brought a new curtain for the Prophet's Mosque; and, being behind its ordinary time of arrival, it was feared that the Bedouin robbers might have plundered it and massacred the pilgrims.

All arrived in safety, however; and when Burton looked out in the early morning upon what had been a dusty waste the night previous, 'the eye was bewildered by the shifting of innumerable details, in all parts totally different from one another; for in one night had sprung up a town of tents of every size, colour, and shape—from the shawl-lined and gilt-topped pavilion of the pasha, with all the luxurious appurtenances of the harem, to its neighbour, the little green *rowtie* of the tobacco-seller. Huge white Syrian dromedaries, jingling large bells; gorgeous litters borne between camels or mules with scarlet and brass trappings; Bedouins bestriding naked-backed dromedaries, and clinging to their hairy humps; Arnaut, Turkish, and Kurdish horsemen, fierce-looking in their mirth; fainting Persian pilgrims; sherbet-sellers and ambulant tobacconists crying their goods; devout hajis jolting one another, running under camels' legs, and tumbling over tent-ropes, in their eagerness to reach the mosque; cannon roaring from the citadel; shopmen, water-carriers, and fruit-vendors, fighting over their bargains; a well-mounted party of old Arab Shayks, preceded by their varlets, performing the *arzah*, or war-dance—compared with which the Pyrenean bear's performance is grace itself—firing their duck-guns upwards, or blowing the powder

into the calves of those before them, brandishing their swords, leaping frantically the while, with their bright-coloured rags floating in the wind, tossing their long spears, tufted with ostrich-feathers, high in the air, reckless where they fell; here the loud shrieks of women and children, whose litters are bumping and rasping against each other, and there the low moaning of some poor wretch who is seeking a shady corner in which to die.'

With this motley company our pilgrim quitted El Medina for Mecca, two hundred and fifty miles farther south, his friends in the former city praying that Allah might make the journey 'easy' to him—a petition which must be regarded as exceedingly appropriate, considering the character of his fellow-travellers, and the fact that the great caravan was to proceed down the Darb-el-Sharki, where no water would be seen for more than three days.

Mecca is one of the oldest towns of Arabia, the capital of the province of Hedjaz, and, through being the birthplace of Mohammed, the central and most holy city of all Islam. It is situated about sixty-five miles east of Jiddah, the well-known port on the Red Sea, in a narrow, barren valley, surrounded by bare hills and sandy plains, and watered by the brook Wadi-Al-Tarafeyn. The city is about fifteen hundred paces long, and about six hundred and fifty broad, and is divided into the Upper and Lower City, with about twenty-five chief quarters. The streets are broad and rather regular, but unpaved; excessively dusty in summer, and muddy in

the rainy season. The houses, three or four stories high, are built of brick or stone, ornamented with paintings, and their windows open on the streets. The rooms are much more handsomely furnished, and altogether in a better state than is usual in the East; the inhabitants of Mecca making their living chiefly by letting them to the pilgrims who flock hither to visit the House of God, or chief mosque, containing the Kaâba.

Kaâba is an Arabic word meaning 'square house,' and is the name of an oblong stone building within the great mosque of Mecca. According to the legend, Adam first worshipped on this spot, after his expulsion from Paradise, in a tent sent down from heaven for this purpose. Seth substituted for the tent a structure of clay and stone, which was, however, destroyed by the Deluge, but afterwards rebuilt by Abraham and Ishmael. The building appears to have existed from time immemorial, and it served the Arabs before Mohammed as a place of idolatrous worship. It is, as it now stands—rebuilt in 1627—thirty-five to forty feet high, eighteen paces long, fourteen broad. Its door, coated with silver, is opened only three times in the year—once for men, once for women, and once for the purpose of cleaning the interior. Next to this door, in the north-east corner of the edifice, is set the famous lava-like Black Stone which has served as an indicator of the direction towards which all Moslems must turn in their prayers. This stone, which is said to have dropped from paradise together with Adam, is held in extreme veneration, and one of

its principal names is 'The Right Hand of God on Earth.' It was originally of white colour, but the sins of mankind have caused it to shed so many silent tears, that it has become (externally) quite black. Others explain this change of colour by the unnumbered kisses and touches bestowed upon it by the pilgrims, part of whose ceremonies consists in compassing the Kaâba seven times, each time either kissing this stone, or touching it with the hand and kissing the latter.

A smaller stone, to which, however, less veneration is shown, is set in the south-east corner of the Kaâba. The outside of the Kaâba is annually covered anew with the richest black silks, on which are embroidered sentences from the Koran in gold; a pious contribution first on the part of the califs, later of the Khedive of Egypt, now of the Turkish sultans. The silk covering for the Kaâba which the Sultan of Turkey sent in 1885 to Mecca was valued at 385,000f. (about £15,400), and that sent by the Khedive of Egypt for the same purpose at 290,000f. (about £11,600). Both are black, most richly embroidered in gold, and so large that each of them covers entirely the whole Kaâba. On the first day of the Kourban-Bairam festival the new covers were laid on the holy stone in the place of the old covers, one of which was sent to the Sultan, and the other to the Khedive, as presents from the clergy of the Mosque.

This mosque, capable of holding about 35,000 persons, is surrounded by nineteen gates surmounted by seven minarets, and contains several rows of

with men, women, and children. There were Arab women in long black robes and face-veils. Corpses were carried round the stone by bearers. A few fair-skinned Turks lounged about, looking cold and repulsive. Those who tread the hallowed floor are bound never again to walk barefooted, to take fire up with the fingers, or to tell lies. After witnessing the ceremonies of the Moslem's holy week, Burton left Mecca, for Jeddah, and in due time arrived at Suez.



Cairo.

A man should be able to carry a...



ASCENT OF THE ROCKY MOUNTAINS.



✕ THE NORTH-WEST PASSAGE BY LAND. ✕

THE widely separated and extensive provinces of the Canadian Dominion, with their rich and varied productions, have been welded together by the completion, in 1885, of the great Canadian Pacific Railway. It is now possible to take a railway ticket from Halifax on the Atlantic, to Vancouver, in Columbia, on the Pacific side of the Dominion. The Canadian Pacific line itself reaches only from Montreal to Coal Harbour, a distance of 2890 miles; but at Montreal it is connected with the Intercolonial Railway, which completes the communication with the Nova Scotian port of Halifax.

Thus there is now in existence a continuous line of railway from the Atlantic port at which the British liners touch, to the Pacific port, whence we shall probably soon find vessels running regularly to China, Japan, Australia, and New Zealand. The immense and prodigiously fertile district in the interior will now be opened up; and the unequalled corn region of Manitoba and the Central Territories,

the magnificent forests of Columbia, the rich mining districts of coal and gold which occur throughout the route, besides the abundance of game of the western prairies, and the inexhaustible supply of fish in the numerous lakes and rivers, will all have easy access to the markets of the world.

On our way westward from Montreal and Ottawa, we see the blue waters of Lake Ontario upon our left, and after we turn our faces to the north, a stretch of a hundred miles brings us to the shores of another great sheet of water—the Georgian Bay of Lake Huron. The railway then stretches westwards, skirting the shores of Lake Huron, next sweeps in a semicircle round Lake Superior to Port Arthur, from which a railway ride of 400 miles brings us to the endless meadows of Manitoba. Before the railway round the lakes was made, steamers traversed the lakes, and thus maintained the connection between Collingwood and Port Arthur.

The province of Manitoba lies to the ^{north}~~south~~ and east of Lake Winnipeg, which is the great central lake of the Dominion. We have now quitted all those regions of Canada that are covered with a dense forest, and come out on the prairies or meadows of the central region. For miles and miles we see the long grasses wave, and out of the treeless land rise the spires of the churches of the new city of Winnipeg, the population of which, in 1870, was only 300. As we approach this creation of the last few years, we cross a river, which, like the Tiber at Rome, rolls rapidly in a turbid, tawny flood. We see that it is joined within the limits of the town

by another stream, not quite so large, but equally muddy. These rivers are the Red River and the Assiniboine, which flow into Lake Winnipeg.

This district was settled by Lord Selkirk soon after the beginning of the present century. It was known at first as the Red River or Selkirk Settlement, and was administered by the Hudson Bay Company until 1869, when it was transferred to Canada. The province of Manitoba was then formed, but its area was enormously increased in 1881. A constant stream of emigrants is now flowing into this splendid country, and the completion of the Canada Pacific Railway will do much to develop its inexhaustible resources. The land is of the richest description. Under tillage, it yields splendid crops of wheat, and the pastures are admirably adapted for sheep and cattle.

The North-west Territory stretches north-west from Manitoba and Hudson Bay to Alaska and the Arctic Ocean, and is eminently characterised by great rivers, lakes, and swamps. The greatest river is the Mackenzie, whose tributaries, of which the chief are the Athabasca and the Peace, flow down to it from the Rocky Mountains. What is known as the fertile belt of the Saskatchewan, together with Red River Valley, is the finest wheat-growing district in the west of America.

When Lord Milton and his college friend, Dr Cheadle, started from England on the 19th June 1862 to traverse the western continent, a very different state of things prevailed. They passed through the desolate and hidden regions of British

territory, known only to the red man, the trapper and straggling companies of emigrants, from the mouth of the St Lawrence to the gold regions of Cariboo. Few feats of modern travel were marked by more varied and striking adventure, or have been attended by more important consequences than theirs. What they accomplished as individuals has since been repeated on a grand scale in the interests of commerce and of politics; communication has been established between English colonies divided by vast tracts of forest and mountain, and more direct and rapid intercourse established between England and China and Japan.

The romance of that memorable journey began when the travellers first beheld Niagara, the awful water-gate to the mysterious world of the forest and the mountain. Afterwards, it grew and grew, as they travelled rapidly away from the country of the white faces and the sound of their native tongue. The change was strongly marked, from the homely names of outlying village and modest townland; from the royally and loyally designated trading-posts of the Hudson Bay Company to the wild, sweet, yet stern-sounding Indian names; and then beyond these landmarks, to the *caches* in the forest, the virgin prairie, the bright solitary river, the frowning mountain-ridge, unnamed and unknown, until the educated white men came to find them out, in their primeval solitude, and call them by some noble or gentle English name, thus binding together widely severed links in the great

chain of human interests. These names produce the strangest and loneliest effect of all.

At the little settlement of Georgetown, which lies under cover of a belt of timber clothing the banks of the river, beyond which, to the south and east, the endless prairie stretches away to the horizon, Lord Milton and Dr Cheadle embarked upon the Red River, for a voyage of five hundred miles, in canoes, their destination being Fort Garry (now the thriving town of Winnipeg). That was a strange voyage: the canoes, of the lightest birch-bark, so that the wind drove them like leaves before it, dropped down the sluggish stream, under the shade of overhanging forest trees. All day long the stillness of the woods reigned around, broken now and then by the dip of the paddles, the sudden splash of a fish, or the cry of some strange bird. Anon, the shrill scream of the eagle, from the topmost bough of some towering giant of the forest, or the harsh note of the hawk, would startle the stillness; while the black and golden orioles fluttered in the bush, the kingfisher sailed by on his gorgeous wings, and the American pigeon darted over the tree-tops. A strange voyage, as each dip of the paddle bore the strangers farther on into the mysterious country of the red men, placing more distance between them and safety, and the association of their fellows. A strange voyage to make, and a stranger to look back upon, when they learned the danger from which they had unconsciously drifted away, and how the simple Indians with whom they had sojourned at Georgetown had all fallen

suddenly under the murderous knives of the Sioux.

A delightful voyage, in its sense of wild freedom and independence, in the wonderful beauty of its daylight revelations of the primeval forest; in the melancholy solemnity of the starlit night, when the whip-poor-will called sharply and continuously, when the countless owls hooted, and the loon gave forth its cry—the saddest sound that any bird utters. An anxious voyage, when fatigue, constant exertion in guiding, emptying, and repairing the canoes began to tell upon the travellers—when exposure to the sun burned and blistered their hands and faces—when their food turned putrid under the fierce heat, and the supply began to fail. An awful voyage, when a sudden storm, so terrible that we, in these regions, can form no notion of its power, of its destructive and transforming effect, broke upon the lonely little crafts, and swept over them, on the wings of darkness.

When the journey came to an end at the Red River Settlement, the travellers were joyfully greeted by La Ronde, a famous 'half-breed' voyageur, who had been with Lord Milton on a former expedition. At Fort Garry, the travellers made their preparations for the adventurous journey they projected; but learning that it was too late in the season to attempt the crossing of the mountains, they resolved to explore the banks of the great river Saskatchewan, and in some convenient spot, set up a house for the winter. This was a brave resolution, and not taken blindly; they well knew the

privation they were about to face, the certain suffering, the fearful cold, the probable danger. They succeeded in obtaining very good saddle-horses, and started in the highest spirits, attended by four men (of whom La Ronde was the chief) well skilled in forest-life. The party, riding beside the carts which contained all their possessions, while the spare horses trotted after them as naturally as did Rover, took the left bank of the Assiniboine; and having passed the boundary of the settlement, found themselves in a fine undulating country, full of lakes, thronged with wild-fowl, and studded with aspen copses. The wide prairies were covered with the deep-blue gentiabella; and in grim contrast with the flowers, the whitened skulls of buffalos strewn the way.

The journey, monotonous, but not wearisome, was prosperous in the beginning, when the travellers found plenty of game, enough to feed the whole party without touching the precious stores of pemmican; when they rode gaily on, or lay down and basked in the sunshine; when they camped at sundown, by wood and water, and, smoking their pipes round the camp-fire, listened to La Ronde's stories of the Sioux, of his hunting adventures, and his journey with Dr Rae. So on to Carlton, having reached which place, they had accomplished five hundred of the one thousand three hundred miles which lie between the Red River and the foot of the Rocky Mountains. They had resolved to go into winter-quarters among the peaceful Wood Crees near White Fish Lake,

eighty miles north-north-west of Carlton, and on the borders of the endless forest stretching away to the northward. There was good trapping-ground within one hundred miles of the plains, and large herds of buffalo had lately come that way. So, for the inevitable interval before the journey of exploration could commence, the travellers led the wild, patient, arduous lives of the trappers and the woodsmen, who wrest from the creatures of the plain and the forest the luxurious furs whereby we temper the moderate cold of our climates to our nicer sensitiveness and feebler nerves. But first, they 'ran' buffalo, and got lost on the prairie, and formed well-grounded suspicions of the intention of some Indians to steal their horses, and baffled their pursuit by a device of almost Indian ingenuity.

These were laborious days when the trees were felled, and the log-hut built, and the stone fireplace constructed; when the Indians 'dropped in,' after an altogether novel fashion of morning-visiting, when the squaws mended the travellers' moccasins, and made up their winter-clothing; and when all was barely completed in time, for the winter fairly commenced with the 23d October; the lake was frozen over, and two inches of snow covered the ground.

In the time of flowers, Lord Milton and Dr Cheadle left Edmonton, to commence a journey whose known dangers were small beside those which were unknown, a journey which others, of whom no intelligence had been received, had indeed under-

taken, but whose feasibility was still an unsolved problem. It was not the intention of the travellers to pursue any tried route, but to take the pass which would lead them most directly to the gold regions, following the trail of the emigrants as far as might seem desirable, and then trusting for reaching Cariboo to their imperfect maps and the sagacity of their men. They had no means of calculating with anything like certainty the duration of their journey in time, and but little food of any kind was to be obtained in the country through which they were about to take their perilous way. They had twelve horses, six laden with their packs, which contained, beside other necessaries, two hundred pounds of flour, four bags of pemmican, ninety pounds in each, tea, salt, and tobacco. Eight hundred miles of unknown country lay between them and any post in British Columbia, and their way thither must be cut through forests—forced through jungle—travelled by rafts across rivers, and over rapids—tortuously won through fearful ravines, and painfully climbed by terrible mountain-heights. They left Edmonton, amid the gloomy forebodings of the inhabitants, the party consisting of Lord Milton; Dr Cheadle; an Assiniboine, who served them well and faithfully; his wife and son; also a certain ‘Mr O’B.’ who is amusing.

From this time we trace the road to Lake St Anne’s, through fifty miles of park-like country, to the borders of the thick forest, stretching away to the mountains. When they came to the Pembina River, they crossed it easily, and ‘prospected’ for

gold, finding a little. Soon they come into country 'into which no one but a Hudson Bay voyageur would think of taking horses,' where the only sound ground is in narrow ridges between log-laden swamps. Now animal life becomes scanty, the waters are untenanted by wild-fowl, and the traces of the moose and black bear are few. But between the Pembina and Athabasca they find a beautiful bird, unknown elsewhere, which makes a strange sound, and they call it 'the booming swallow.' They track a few grizzly bears, the terror of the Indian, and coming on some open ground, and a bright little river, they camp, to give the horses rest, and to try some hunting and fishing. Here the first terrible experience of their journey befell them; the forest took fire around their little clearing, and they rescued their horses and their supplies with incredible labour and difficulty. As they pursued their onward way, the clouds of smoke which hung in the air behind them showed that the conflagration was raging still—to spread how far, to last how long, no man may ever know. On and on, to the banks of the Athabasca, whose steep sides are thickly clothed with pine, and spruce, and poplar. The fury of the turbulent stream dismays them, for how is it to be crossed? For the present, however, the trail follows the bank, and after a while it strikes a bare and rounded knoll. They climb the ascent, and, free of the level country and the dense forest, they get their first sight of the Rocky Mountains.

Ranges of pine-clad hills rise one above another



UPPER LAKE OF THE ATHABASCA AND PRIEST'S ROCK.

towards the west, and parallel with them in the distance are the grand summits wrapped in eternal snow. Looking across the hills, they see a cleft in the mountain-ridge, clean cut as if with a knife, and a singular rock to the eastward, which they know to be La Roche à Myette: the cleft is that through which they are to pass into the intricacies of the mountain-chain, but they have much to do and endure before their weary steps shall reach the chasm, on which the sun shines, far away. On again through the river-valley, and to camp on a tiny prairie, rich with vetch-blossoms, but where the cold is hardly bearable, and the ice is thick on everything; and next day, at noon, they reach a small round lake, shut in on every side by rugged, precipitous, lofty mountains, and haunted by the melancholy loon. When the cleft is reached, and La Roche à Myette, the travellers are fairly in the Rocky Mountains; and when the toilsome ascent is completed, the reluctant horses dragged up the steep shelving pass, and river, lake, mountain, gorge, and valley lie in all their richness and variety of loveliness before the eyes of the travellers, even the Indian woman and the boy, roused from their stolid apathy, exclaim: 'How beautiful!' A succession of peaks towered up on every side, of strange fantastic shape. The Priest's Rock, a pyramid of ice, shone brightly above a dark pine-clad hill to the west; and hundreds of feet beneath them rushed the torrent of the Athabasca. It emerges from the heart of the mountains, through a narrow gorge into the wider valley, then expands

into a lake three or four miles in length ; then again narrowing, it opens into a second lake, smaller than the first.

Having descended on the opposite side, and camped in the sandy plain, gorgeous with wild-flowers, they make hunting excursions, and are much visited by Indians of the Shushwap tribe. These creatures are kind and gentle, but very low in the scale of humanity. The Indians of the Rocky Mountains, when discovered by the Hudson Bay Company, wandered barefoot and unclothed, save by a marmot's skin garment, among the barren rocks, and in the bitter cold of the fierce northern winter. They never sought the protection of the woods, but camped in open places, making but a small fire, and lying round it, their feet towards the flame, like the spokes of a wheel. The travellers remained some time in their camp, and then set forth again to face difficulties which increased with every day's journey. They turned from the valley of the Athabasca, and entered that of the Myette, encountering great danger in traversing the stream on horseback, and narrowly escaping the loss of a pack-horse laden with pemmican and flour. What with the rocks and rapids in the river, the logs and débris on the shore, which made their progress a series of slow and difficult jumps, the perpetual wandering of the led-horses into marshes and brakes, and the consequent wetting of the packs, the slowness and toil of their progress, they might fairly have been discouraged ; but they were not so, and that was well,

for there was much worse to come. Refreshed and delighted by the beauty of Moose Lake, and the magnificence of the mighty cascades which they found to the south, and named the Rockingham Falls, they followed the Fraser River, and coming to an open space, rich in grass and vetches, which the famished horses eagerly devoured, they camped for some hours, and then began the descent, very gradual and continuous, of the western slope, carefully marking the change of vegetation on the Pacific side.

The enlarged growth of the timber, the profusion of fallen trees, the entanglement of trailer and brushwood, made their journey infinitely difficult and laborious; and one day they came to a place where the trail passed along the face of a lofty cliff of crumbling slate, affording only a few inches of footing for the horses. They passed in safety, and named the terrible pathway, 'Mohammed's Bridge.' While making for the Tête Jaune Cache, two of their horses, 'The Fool' and 'Bucephalus,' slipped over the river bank, and were swept off in the current of the boiling, impetuous Fraser. The Assiniboine, on seeing this disaster, ran down the river's bank until he had headed the horses, when he attempted their rescue at the risk of his own life. Bucephalus observing the Assiniboine, attempted to reach the shore. Although the place was a fearful rapid, as the horse neared the land for an instant, the Assiniboine leaped in, threw his arms round the animal's neck, who neighed gratefully, and the two, supporting each other, eventually reached the shore. The party



THE ASSINIBOINE RESCUES BUCEPHALUS.

sustained the serious loss of the other pack-horse, which carried their whole store of tea, salt, tobacco, clothes, matches, and ammunition; all their papers, letters of credit, and valuables; Lord Milton's buffalo-robe and blanket; Dr Cheadle's collections of plants, instruments, and watch. The loss was sufficiently serious, but no actual necessary of life was gone; the pemmican and the flour remained, and they were soon to learn the value of every ounce of both, or either.

The onward way of the travellers from Tête Jaune Cache was full of toil and danger, and by degrees, hopelessness of succeeding in their object stole over them. A fortnight after they had crossed the Fraser, their provisions were reduced to ten pounds of pemmican, and an equal quantity of flour—not ten days' rations for the six. Game was scarce, and had it been otherwise, they could have killed but little with the few charges of powder that remained. Their horses were starving, their clothes were in rags, their moccasins had long ago been pieced with the remnants of their saddle-bags. They had but one small Indian axe with which to cut their way through they knew not what density of forest; and they had come to the end of the trail. Here, as they learned from an inscription on a tree, the emigrants, a strong party, had slaughtered their beasts for food, and trusted themselves on rafts to the river—a resource utterly impossible to the weakness and inefficiency of Lord Milton's party.

The council they held was a sombre one; it was agreed that the Assiniboine should reconnoitre the

country; and if he pronounced the feat practicable, that they should cut their way through the forest to Kamloops, an Indian station a hundred and thirty miles distant, as they calculated. The next day the Assiniboine started on his mission; and returned in the evening to report that the plan, though beset with difficulty, was possible, and carrying to the relief of the famishing party a small black bear, a portion of which they ate with great appetite, though they had neither bread nor salt to eat with it, tea to drink, nor tobacco to smoke after it. They had now, with economy, provisions for a week, and they took heart again, for, said the Assiniboine: '*Nous arriverons bientôt.*'

Into the trackless forest they plunged, no trail now to follow, no landmark to watch for, the Assiniboine going first, the others following, and driving three horses apiece in single file. The toil of that progress is not to be told in words, and can hardly be exaggerated by any fancy, however vivid. They accomplished it—that brave little band—through fatigue so terrible as to be almost maddening, through lengthened, sickening pangs of hunger, through uncertainty and dread; for how were they to know where egress was to be found—how were they to be sure that they were not plunging more and more deeply into the forest, to die in its remorseless heart, when the animals they had with them should all have been slaughtered and eaten. They accomplished it, though their main guide and helper, the Assiniboine, a one-handed man, lost the use of his one hand, from wounds in his

woodcutter's task of felling the trees to let them through; and was replaced in his laborious post by his patient, heroic wife; though they were frequently brought to a stand-still by solid blocks of fallen timber, many feet in height; though they had to cross marsh and quagmire, and to find the temporary promise of the level land betrayed by ever-rising ranks of mountain-range beyond; though they had only berries to eat, and a decoction made from the leaves of the white azalea to drink.

They accomplished it, though the moral no less than the physical side of their natures was sorely tried—though they paused to read an awful warning, a terrific threat, in the depth of the forest. One day, when they were, perforce, resting, weary of hunger and labour, the Assiniboine left them to search for food, and returned to tell them he had found a dead man. A few hundred yards from their camp, an awful, unsuspected neighbour sat at the foot of a large pine. A ghastly, headless figure the dead man sat, the legs crossed, the arms clasped round the knees, bending over the ashes of a small fire. The tattered clothes hung round the shrunken form, and an axe, a kettle, a fire-bag, and two baskets lay near the feet. Something more lay there also, and told the story of the dead man's fate; it was a heap of broken bones, the fragments of a horse's head, chipped into the smallest pieces, from which the Indian had sucked every particle of nutriment before he had cowered over his fire at the foot of the pine-tree and died of starvation. The white men searched in vain for the head of

the corpse; it was not to be found; then they took the axe, the steel, the fishing-line, and the hooks and turned silently away. The aid they sorely needed had come to them from the nameless dead.

Yet, in spite of all, these English gentlemen carried out their purpose. They killed two of their horses, and lived as sparingly as possible upon the dried meat; they ate marten's and skunk's flesh; they caught some fish, but very few; they shot and ate a porcupine; they fasted as courageously as was possible; they never despaired; and they worked indefatigably. They cheered up the spirits of the Assiniboines; they resolutely kept discouragement at bay; they plodded on and on; and one glorious morning in July they heard the 'caw! caw!' of a flight of crows, telling of open country near at hand. They saw branches cut with a knife by a man's hand; they found marten-traps, and struck a trail; the valley expanded; and two days later they emerged on a beautiful prairie, and saw before them free open country, bright grass-lands, and the blessed evidences of human life.

Soon they were devouring a greasy mess of bacon and cabbage, with some delicious cakes, the whole washed down with copious draughts of tea. Considering their miserable and unprepossessing appearance they were surprised to meet with such hospitality; but their story was believed at once and so their troubles were over. The narrative of this remarkable journey was afterwards published under the title of *The North-West Passage by Land*, by Viscount Milton and W. B. Cheadle.



VICTOR JACQUEMONT,

THE FRENCH NATURALIST.

TO grasp a few of the truths which make up the wondrous unity of nature, is the vocation of the naturalist; and no man has ever given himself to this noble life-work with a fuller self-abnegation than Victor Jacquemont, a promising French naturalist, who found in 1832 a premature grave in India.

Jacquemont was born in 1801 in Paris, where his father, a man of considerable literary and scientific attainments, filled at one time the office of Director of Public Instruction. At a very early age the boy evinced a strong attachment to natural history, the practical outcome of which was that in after-years he received a letter from the Directors of the Jardin des Plantes in Paris, proposing to him an expedition into India, which should be ethnological, geological, and botanical. After some little hesitation he accepted this offer, and prepared for it at the end of 1827. Before setting out on his Indian expedition, he went to London, armed with a letter of introduction from Baron Cuvier to Sir Alexander Johnston. To the kindness of this gentleman he owed the flattering reception accorded to

him by the Royal Asiatic Society, and also letters of introduction to the most influential men in India. With the Board of merchant princes in Leadenhall Street, who then swayed the destinies of India, he had rather more trouble; and it was only after several vexatious delays that he succeeded in obtaining from them the necessary credentials. Furnished with these, he embarked on board a man-of-war which was bound for Bengal, with the new governor of Pondicherry on board.

La Zélée was a very slow, and moreover a very noisy ship; and to the studious naturalist, her officers, although good enough fellows, were anything but congenial companions. In due time, however, that is to say in the beginning of May 1829, the vessel arrived in Calcutta; and Jacquemont, scrupulously arrayed in black, armed himself with one of his letters of introduction, and getting into a palanquin, ordered himself to be conveyed to the house of the Advocate-general. Here he was shown into a large drawing-room, where 'I found,' he says, 'three ladies in full toilet, and a man with gray hair in a light cotton dress; all four being fanned by a complicated machinery of hand-screens.' Prepared only for the grave presence of the Advocate-general, he was taken so entirely aback that he got momentarily confused, and could only stammer out: 'I used to speak a few words of English, but I perceive I have forgotten it all; pray help me.'

This appeal was irresistible; he was helped so effectually that he was soon at his ease, and quickly got rid of all his letters of introduction, including

one to Lady William Bentinck and another to the Governor-general. With both these exalted personages he soon became a great favourite, and was a frequent and welcome guest at Government House. In Calcutta he became at once the fashion; but he had come out to India not to enjoy himself but to work. He had, moreover, for his work a zeal and ardour which urged him irresistibly to give his whole heart and soul to it. He had health and strength, and knowledge sufficient to warrant fresh discoveries in all the branches of science for which he had undertaken to cater; but another requisite was wanting to success—money. He had been sent out with an allowance of six thousand francs a year (about two hundred and forty pounds), and in his inexperience he had considered this sum ample; now he began to see that it had inconveniently narrow limits. He resolved, however, to start at once for Benares; but first he wrote a letter to the authorities of the Jardin des Plantes, setting before them the difficulties of his position. Pending an answer to this appeal, he bought for six hundred and fifty francs (twenty-five pounds) a young Persian horse saddled and bridled. This was upon the whole a good investment. 'I read, sleep, and study my plants with a magnifying glass,' he writes, 'all the time I am on horseback, although sometimes he throws me, when I am stupid enough to dispute with a beast without reason.'

When he had fairly set out upon his wanderings, he discarded his suit of ceremonious black, and arrayed his tall meagre person in a long nankeen

dressings-gown, over which was wrapped a robe of coarse silk; while his pale spectacled face was shaded by a large straw hat covered with black taffety; stockings he did not wear except at night. He had a little tent with him—'a handsome mountain-tent,' he calls it—of which he was much enamoured; also a bamboo cot, ten servants, and two cars and oxen. 'I have only two plates,' he says, 'and I have a man to wash them. Woe be to him if they are not clean.' His habits when on the march were as abstemious as possible. At four in the morning he breakfasted on a pound of rice boiled in milk, with a little sugar, which was all the food he took until his tent was pitched in the afternoon. Then he dined upon a chicken when it was forthcoming, but more usually upon some scraggy patriarch of the feathered tribe, stewed with rice in rancid ghee or native butter. He had no bread, and his only drink was water, mixed, when his health required it, with a little brandy. When it chanced to be cold at night, or when he had much writing to do, he sometimes treated himself to a cup of tea.

On the 31st of December 1829, he arrived at Benares, having encountered considerable difficulties on the road. 'Where should I have been,' he writes pathetically in one of his letters, 'without my guard? Undoubtedly drowned in the mud at the mouth of some river.' Since leaving Benares, he goes on to record, 'I have come to an admirable arrangement with my horse, who suffers me to read undisturbed all day long upon his back, pro-

vided I do not thwart him in any of his whims. The magnificent English consider this pace very negligent; but as they know the value of time, my character as a gentleman does not suffer by it.' At Delhi, where he arrived in the beginning of March, the Great Mogul held a durbar in order to receive him, and solemnly invested him with a khelat or dress of honour. This he variously describes as resembling a Turkish dressing-gown, and a worked muslin dressing-gown; and to crown the honours of his life at Delhi, he goes on to mention for the benefit of his father: 'I never go out either in a carriage, a palanquin, or on an elephant, without a brilliant escort of cavalry.' He was, moreover, styled Sahib Bahadour, or lord victorious in war, and by this title he was ever afterwards known in the East. In Delhi he left the collection which he had formed during the five or six hundred leagues he had travelled, and in the middle of March resumed his solitary wandering life, travelling towards the mountains.

These Indian Alps seemed to him inferior in picturesqueness and beauty to those of Europe. 'In the highest mountains in the world,' he says, 'there is necessarily grandeur, but it is grandeur without beauty.' He found, however, in their rugged and desolate fastnesses many new plants, and the remains of shell-fish even in the more elevated strata, and considered himself by these discoveries amply repaid for his fatigues and privations, which were many and grievous. He was very poorly fed, and had been compelled by the

exigencies of mountain travel to leave behind him most of the few comforts at his command. Boiled rice, while it lasted, still formed the staple article of his food; and when it was exhausted, the compulsory change to wheat and barley made him ill. Then he suffered much from the cold, which was great. One night he camped out at an elevation a thousand feet higher than the summit of Mont Blanc, and several times he crossed passes eighteen thousand feet above the sea. In these circumstances the night cold was often intense, and lying on his hard bed he was many times almost frozen alive, and had to drink a little brandy the first thing in the morning to warm himself.

To add to his other discomforts, the rainy season came on; and to escape from the drenching torrents which almost drowned him, he marched towards Tibet, having to carry provisions for twelve days for himself and the sixty men who now formed his party. He was dressed in thick woollen clothes, and wrapped in blankets from head to foot, and yet he suffered extremely from the cold. 'This is a strange climate,' he writes, 'it snows moderately in winter, and there is no thaw for four months; it scarcely ever rains, but blows a violent hurricane every day at three o'clock, which lasts far on into the night. I often awake long before daylight, frozen through my five blankets.' Here he lived upon cakes of coarse wheat, and mutton hams so hard that it was scarcely possible to chew them. At last these hardships told even upon his indomitable energy; one evening, after a march of seven

hours, he was seized with such dreadful internal pains that they almost brought on delirium. Fortunately this attack went speedily off; and in eight months he returned from his Himalayan expedition very thin and very brown, but with the appearance of perfect health, and in the possession of a rich collection of plants, minerals, and organic remains.

While on the frontiers of Chinese Tartary he had received a kind letter from a countryman of his own, M. Allard, a French officer in the service of Runjeet Singh. On his return to Delhi he found a second letter from M. Allard awaiting him, recommending him, if he wished to travel in Cashmere, to obtain a letter of introduction to Runjeet Singh from the Governor-general. This was readily furnished to him by Lord William Bentinck; and at the end of January 1831, having left his Himalayan collections at Delhi, he set out on his journey to the Punjab, intending to proceed ultimately to Cashmere. 'I have still the same horse,' he writes, 'which has carried me from Calcutta to the foot of the Himalayas. His temper is as bad as ever, but I am grown more cunning than he; and since I left Benares he has not thrown me once.' Mounted on this much-enduring charger, he reached Loodiana, where he was met by an escort from Runjeet Singh, and was presented with much ceremony with a bag of money, as a present from the Rajah. A large basket of fruit and a vase of cream were also placed beside the door of his tent. He was six days' journey from Lahore, and every day until he arrived there this agreeable ceremonial was repeated.

When he arrived at Lahore, a charming little palace surrounded by groves of orange trees and jasmines was assigned to him as a residence. Here a splendid dinner was served up to him by torch-light, and he was waited upon by servants richly dressed in silk. 'I had courage,' he writes, 'to take as usual only bread, milk, and fruit.' Next day he had an interview with Runjeet Singh, who took a violent fancy to him; 'but his conversation,' he writes, 'is to me like a nightmare. He is almost the first inquisitive Indian I have ever seen, and his curiosity balances the apathy of the whole of his nation.' In the middle of March he parted from Runjeet Singh, who bestowed upon him a *khelat* worth five hundred pounds, besides a bag of money containing eleven hundred rupees. He heard at the same time from the administrators of the *Jardin des Plantes* that his pay was increased eighty pounds a year, so that the sun of prosperity shone brightly upon him when he began his journey to Cashmere. The road, a winding track up narrow mountain gorges, was rough in the extreme; and to add to his difficulties, he was taken prisoner by a robber chief, Neal Singh, from whom he only escaped by paying a ransom of five hundred rupees.

His horse, which had carried him so capitably in all his former wanderings, now became very lame from the loss of its shoes, and he was forced to walk, and to wade through torrents of icy water more than waist-deep. All this made him so ill that he began to spit blood, and in April describes

himself as in a pitiable condition. This illness he checked by sending his men to the neighbouring rivers to catch leeches, sixty-five of which he applied to his chest; while to cure the weakness produced by this loss of blood, he had two sheep a day killed, and ate as much mutton as he could. In the middle of May he arrived in Cashmere, and took up his abode in a charming little palace, situated in a garden planted with lilacs, rose-bushes, and immense plane-trees. His table at Cashmere was supplied by the munificence of Runjeet Singh; but he had little relish for the unfamiliar dainties served up to him, and was seized with an intense longing for bread and the light wines of his native France. He began indeed to suspect that a gradual but steady deterioration in his health, of which he first became sensible in Cashmere, was caused by the want of a small daily quantity of wine.

During the summer, which was exceptionally dry, he made excursions of nineteen or twenty days at a time into the mountains, from which he returned with a large collection of new plants, and what he styles a specimen of a 'very respectable unknown quadruped,' a new species of marmot. On the 19th September of the same year he quitted Cashmere, having with him an escort of sixty soldiers, and fifty porters to carry his new scientific collections. On the road to Umritsir he met Gulab Singh, who gave him a fine white horse splendidly caparisoned, and a *khelat* with Cashmere shawls. He had also at Umritsir another interview with

Runjeet Singh, who offered him the vice-royalty of Cashmere, with an annual revenue of two lacs of rupees (twenty thousand pounds); but this splendid offer he declined, and on the 21st of October took his final farewell of this Indian potentate. Returning to Delhi, he had a few days of pleasant intercourse with his old friend the Governor-general, followed by two months of incessant work in arranging his collections, after which he travelled by Ajmere and Aurungabad to Bombay.

The island of Salsette, which he visited, after quitting Bombay, in September 1832, was covered with pestilential forests; but in spite of these and of a burning sun overhead, he explored it from one end to the other, taking long and fatiguing marches on foot, and struggling with, instead of yielding to, his increasing bodily weakness. At last, on the 27th of October, he had an illness similar in nature to that which had attacked him on the confines of Tibet. There were the old intolerable fits of pain, which he tried in vain to combat with the old remedies. He covered himself with leeches, but their only effect was to weaken him: he tried the oil of Palma Christi; it was powerless. He grew worse instead of better, and at last had himself conveyed to the hospital for sick officers at Bombay. Here he lay for the whole month of November in great pain, but with hope to cheer him; then his sufferings became less, but the deadly weakness and sleeplessness increased. He knew now that he had abscess of the liver, and strove calmly to

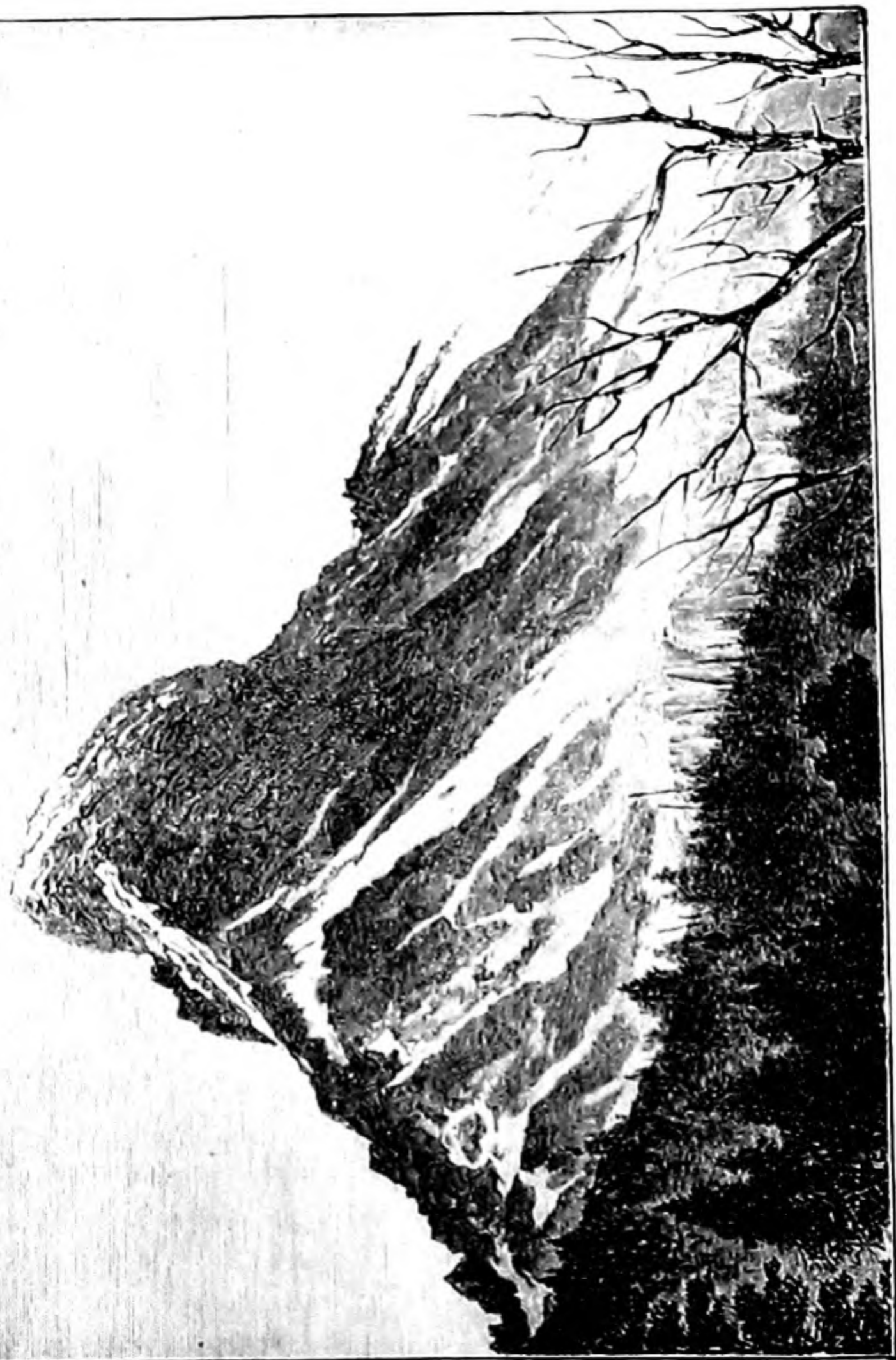
familiarise himself with the idea of approaching death.

A few months before, on completing his thirtieth birthday, he had written almost with repining regret, 'the half of life is probably past for me.' And now it was not without a supreme effort that he resigned himself to his fate. Life had been very dear to him. Steeped as it seemed to others in hardship and privation, it was full for him of the keen delight of pursuing and achieving, and sweet with the zest of frequent triumphs. Yet with characteristic self-abnegation he turned from the view of his case that peculiarly concerned himself, to think of some means of comforting his old father and favourite brother Porphyre. 'The cruellest pang,' he writes, 'my dear Porphyre, for those we love is, that when dying in a far distant land, they imagine that in the last hours of our existence we are deserted and unnoticed.' He then goes on to beseech them not to think of him as dying lonely and untended in a foreign land; but rather to picture him as soothed and comforted by the affectionate solicitude of the kind English friends, whose names he mentions, the better to reassure their aching hearts. Long before these simple words of consolation had sped across the leagues of land and sea which divided him from those he loved, he had ceased to exist. He died tranquilly and courageously on the 7th December 1832, a martyr to his beloved science.

As a Frenchman of his period, it was inevitable that Victor Jacquemont should arrive in India

imbued with many prejudices against the British; and it is curious and interesting to note how his estimate of the British national character gradually and steadily rose. In his later letters he bears an unvarying testimony to the beneficence of the English rule. 'No other nation in Europe,' he says, 'would do so much for the inhabitants of a conquered country.' And again he speaks of what was formerly a very turbulent district of Rajpootana, 'as being in the highest degree sensible of the immense benefit conferred upon them by the British government.' What he principally objected to in the English were their luxurious habits and their costly refinements of comfort, which seemed to him to make the material side of life all in all to them. It was his fancy even that a special Nemesis in the shape of liver disease dogged in the land of their exile the steps of these English. 'The English,' he is never weary of repeating, 'have liver disease. What causes it? Four immoderate meals a day.' Nor was over-addiction to the pleasures of the gastronome the only shortcoming he alleged against them. 'Oh, how sad it is,' he slyly insinuates, 'thus to see a whole nation afflicted with hydrophobia. For myself, I am safe; I drink water and milk, I live on rice as much as possible, and thus defy the scourge of the English.'

A sad commentary on these words was the premature death of this adventurous naturalist, which occurred in 1832, in the hospital for sick officers at Bombay.



SUMMIT OF MATTERHORN.



TRAGEDY ON THE MATTERHORN.

GREAT mountains never fail to exert a singular fascination upon those who come within the range of their influence. In early as in later times—among the barbarous as well as the civilised—this influence has manifested itself in a conspicuous manner. But it is only within comparatively recent times that the scaling of the higher mountain summits of the globe has been raised into something like the dignity of an art. What the mountaineer formerly did for the purposes of pleasure or the chase, the man of science now does in order to extend his knowledge of the forces and operations of Nature. The first ascent of this kind which attracted the attention of the scientific world was that of Mont Blanc by the Swiss naturalist M. de Saussure, in August 1787. Until the previous year, when Dr Paccard made the ascent, the inhabitants of the valleys at its base believed the mountain to be both unscaled and unscalable. But while ‘the monarch of mountains’ was thus subdued by the foot of man, and while

scores of his subordinate peaks have yielded to the same irrepressible power since, there was one other of the Pennine Alps which long continued to wear inviolate his crown of inaccessibility. This was Mont Cervin, or the Matterhorn. Numerous attempts had been made upon it by the bravest and most skilful of our mountaineers, scientific and otherwise; but each and every attempt was baffled till in 1865 its ascent was accomplished by a little party of hardy English climbers. The narrative of that ascent is told by one of its leaders, Mr Edward Whymper, in his books, *Scrambles among the Alps*, and *The Ascent of the Matterhorn*.

In 1861, Mr Whymper made a successful ascent of Mont Pelvoux, one of the Dauphiné Alps; and of the other summits which yet remained unscaled, two especially excited his admiration—namely the Weisshorn and the Matterhorn. Subsequently, however, rumours were afloat that the former had been conquered; and the climber thereupon directed his attention exclusively to the latter. The Matterhorn, it may be here mentioned, is a peak of the Pennine Alps, nearly fifteen thousand feet high, situated between Switzerland and Italy, about forty miles north-east of Mont Blanc, and twelve miles west of Monte Rosa. Previous to 1861, numerous attempts had been made to scale the mountain; but no one had managed to reach a greater altitude than thirteen thousand feet, the remaining two thousand feet being generally acknowledged as inaccessible. The peak of the mountain, says Mr Whymper, ‘rises abruptly, by a series of cliffs which may properly

be termed precipices, a clear five thousand feet above the glaciers which surround its base. There seemed to be a cordon drawn around it, up to which one might go, but no farther. Within that invisible line, gins and afrits were supposed to exist. The superstitious natives in the surrounding valleys spoke of a ruined city on its summit wherein the spirits dwelt; and if you laughed, they gravely shook their heads; told you to look yourself to see the castles and the walls; and warned one against a rash approach, lest the infuriate demons from their impregnable heights might hurl down vengeance for one's derision.'

Mr Whympers, in his first scramble on the Matterhorn, only reached what is called 'the Chimney,' a height of twelve thousand six hundred and fifty feet, when his guide refused to accompany him farther, and he had to return. He made other five attempts in 1862, one in 1863, and two in 1865—nine in all. The ninth was successful. In one of his attempts in 1862, he had the hardihood to go alone, and even attained a height of thirteen thousand four hundred feet. But his hardihood nearly cost him his life. 'Time sped away unregarded,' and after reaching an altitude of twelve thousand feet, where he had formerly left a tent, he had allowed night to come upon him. 'The sun was setting, and its rosy rays, blending with the sunny blue, had thrown a pale pure violet far as the eye could see; the valleys were drowned in purple gloom, whilst the summits shone with unnatural brightness. . . . By-and-by, the moon as it rose

brought the hills again into sight, and by a judicious repression of detail, rendered the view yet more magnificent. Something in the south hung like a great glow-worm in the air; it was too large for a star, and too shady for a meteor; and it was long before I could realise the incredible fact that it was the moonlight glittering on the great snow-slope on the north side of Monte Viso, at a distance, as the crow flies, of ninety-eight miles.' He stayed in the tent all night, and in the morning proceeded yet higher. He reached the Great Tower, a huge precipitous rock, standing up like the battlements of a castle. Without assistance, he could not proceed farther, and returned. In the course of his descent, he had to turn the angle of a fearful cliff, in the hardened snow of which it was necessary to cut steps for his passage. In attempting to pass this corner he slipped and fell. 'The slope was steep on which this took place, and was at the top of a gully that leads down through two subordinate buttresses towards the Glacier du Lion, which was just seen, a thousand feet below.' In his fall he was dashed now upon rocks, now over ice, gathering momentum as he descended. Fortunately, he never lost his senses; and the last bound, which sent him spinning through the air, landed him on his left side among rocks, which momentarily retarded his progress; and a few frantic catches brought him to a halt in the neck of the gully and on the verge of the precipice. 'Bâton, hat, and veil,' he says, 'skimmed by and disappeared; and the crash of the rocks—which I had started—as they fell on to

the glacier, told how narrow had been the escape from utter destruction. As it was, I fell nearly two hundred feet in seven or eight bounds. Ten feet more would have taken me in one gigantic leap of eight hundred feet on to the glacier below.' He was terribly cut and bruised, the blood gushing from two gashes in the head; but he managed to scramble to a place of safety, and then fainted away.

Readers of Dr Livingstone's Travels will remember a passage in which that intrepid missionary gives an analysis of his feelings in the few terrible moments of consciousness which succeeded his being struck down by a lion, and when it seemed to him that death was inevitable. Mr Whympers gives a similar analysis of his sensations at the time of the above accident. He says: 'I was perfectly conscious of what was happening, and felt each blow; but like a patient under chloroform, experienced no pain. Each blow was naturally more severe than that which preceded it, and I distinctly remember thinking: "Well, if the next is harder still, that will be the end." Like persons who have been rescued from drowning, I remember that the recollection of a multitude of things rushed through my head, many of them trivialities or absurdities which had been forgotten long before; and more remarkable, this bounding through space did not feel disagreeable. But I think that in no very great distance more, consciousness as well as sensation would have been lost; and upon that I base my belief, improbable as it seems, that death by a fall from a great height is as painless an end as can be experienced.'

Mr Whymper's ninth and successful attempt on the Matterhorn was made in July 1865, in company with Lord Francis Douglas, Mr Hudson, Mr Hadow, and three guides. A tragic interest attaches itself to the memory of Lord Francis Douglas, who met his fate, along with three others, in this ill-starred expedition. He was a son of the seventh Marquis of Queensberry, was a young gentleman of great promise, and had already excited wonder and admiration by a recent mountain-climbing exploit. Mr Whymper had met him two days previously at Breil, when Lord Francis at once entered eagerly into the proposal for ascending the Matterhorn. Whymper says of him that he was nimble as a deer, had had the advantage of several seasons in the Alps, and was becoming an expert mountaineer. On the first day, they did not ascend to a great height; and on the second day they resumed their journey with daylight, as they were anxious to outstrip a party of Italians who had set out before them by a different route. Difficulty after difficulty was surmounted. 'The higher we rose, the more intense became the excitement. What if we should be beaten at the last moment? The slope eased off; at length we could be detached (from the rope which bound the party together), and Croz and I dashing away, ran a neck-and-neck race, which ended in a dead-heat. At 1.40 P.M. the world was at our feet, and the Matterhorn was conquered. Hurrah!' They had beaten the party of Italians, whom they saw on the south-west ridge, twelve hundred and fifty feet below, and who did not

prosecute the ascent farther. For an hour the successful climbers revelled in the scene which lay at their feet. 'There were black and gloomy forests, bright and cheerful meadows; bounding waterfalls and tranquil lakes; fertile lands and savage wastes; sunny plains and frigid plateaux. There were the most rugged forms and the most graceful outlines; low perpendicular cliffs and gentle undulating slopes; rocky mountains and snowy mountains, sombre and solemn, or glittering and white, with walls, turrets, pinnacles, pyramids, domes, cones, and spires! There was every combination that the world can give, and every contrast that the heart could desire.'

Alas! their naturally triumphant feeling of pleasure was but short-lived. They had commenced their descent, again tied together with ropes. Croz, a most accomplished guide and a brave fellow, went first; Hadow, second; Hudson, as an experienced mountaineer, and reckoned as good as a guide, third; Lord F. Douglas, fourth; followed by Mr Whymper between the two remaining guides, named Taugwalder, father and son. They were commencing the difficult part of the descent, and Croz was cutting steps in the ice for the feet of Mr Hadow, who was immediately behind him. 'A few minutes later, a sharp-eyed lad ran into the *Monte Rosa Hotel*, saying that he had seen an avalanche fall from the summit of the Matterhorn on to the Matterhorn-gletscher. The boy was reproved for telling idle stories; he was right, nevertheless, and this was what he saw. Michel Croz had laid aside his

axe, and in order to give Mr Hadow greater security, was taking hold of his legs, and putting his feet one by one into their proper positions. As far as I know, no one was actually descending. I cannot speak with certainty, because the two leading men were partially hidden from my sight by an intervening mass of rock, but it is my belief, from the movements of their shoulders, that Croz, having done as I have said, was in the act of turning round to go down a step or two himself. At this moment, Mr Hadow slipped, fell against him, and knocked him over. I heard one startled exclamation from Croz, then saw him and Mr Hadow flying downwards; in another moment Hudson was dragged from his steps, and Lord F. Douglas immediately after him. All this was the work of a moment. Immediately we heard Croz's exclamation, Old Peter and I planted ourselves as firmly as the rocks would permit; the rope was taut between us, and the jerk came on us both as one man. We held; but the rope broke midway between Taugwalder and Lord Francis Douglas. For a few seconds we saw our unfortunate companions sliding downwards on their backs, and spreading out their hands, endeavouring to save themselves. They passed from our sight uninjured, disappeared one by one, and fell from precipice to precipice on to the Matterhorn gletscher below, a distance of nearly four thousand feet in height. From the moment the rope broke, it was impossible to help them. So perished our comrades !'

At the moment of the accident we learn further

that Croz, Hadow, and Hudson were close together. The rope was all but taut between Hudson and Lord F. Douglas; Croz was standing by the side of a rock which might have afforded him a good hold if he had possessed sufficient presence of mind to seize it; but he was quite taken by surprise. Hadow had slipped off his feet on to his back, his feet struck Croz in the small of the back, and knocked him right over, head first. 'Croz's axe,' says Whymper, 'was out of his reach, yet without it he managed to get his head uppermost before he disappeared from our sight. If it had been in his hand I have no doubt that he would have stopped himself and Mr Hadow. Mr Hadow, at the moment of the slip was not occupying a bad position. He could have moved either up or down, and could touch with his hand the rock of which I have spoken. Hudson was not so well placed, but he had liberty of motion. The rope was not taut from him to Hadow, and the two men fell ten or twelve feet before the jerk came upon him. Lord F. Douglas was not favourably placed, and could neither move up nor down.'

Those who were saved from this terrible death remained on the spot about half-an-hour after the accident, without moving a single step. The two guides, paralysed by terror, cried like infants. The young man did nothing but scream or sob, 'We are lost! we are lost!' As Whymper was fixed between the two he could neither move up nor down. On being relieved from his perilous position, Whymper asked for the rope which had given way, and found that it was the weakest of the three ropes which had

been in use. The guides were so unnerved as to render the descent a very dangerous operation; but it was effected in safety.

At six o'clock at night the peril of the descent was over. They had frequently looked for traces of their unfortunate companions; but in vain. On reaching Zermatt a score of men left for the heights, and returned after six hours, saying that they had seen the bodies lying motionless in the snow. Other search expeditions were fitted out, and after some days the bodies of Croz, Hadow, and Hudson were found lying near each other at the foot of an immense cliff; but of Lord Francis Douglas nothing could be seen, nor were his remains ever discovered.

It is a melancholy ending to an otherwise successful adventure, and may well excite a feeling of surprise that so many brave and useful men can thus be found year by year hazarding their lives for what is in many cases no higher purpose than that of pleasure or sport. The death of Lord Francis Douglas and his unfortunate companions formed the subject of much unfavourable comment at the time, both in this country and on the Continent; yet the fashion of Alpine climbing is in no whit abated, and the terrible cliffs of the Matterhorn have since then had still other victims.

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